

Spring Week 6

7.2.22

FIND A RULE – ONE  
STEP



7.2.22LO: To find a rule- one step problems

- 1) 10% of a number is 40. What is the number?
- 2) Work out 50% of 120?
- 3) Multiply 4.36 by 100
- 4) Work out  $\frac{3}{4} + \frac{3}{5}$

Do now- in  
books-  
Flashback 4 title

# Flashback 4

Year 6 | Week 5 | Day 1

1) 10% of a number is 40. What is the number?

400

2) Work out 50% of 120?

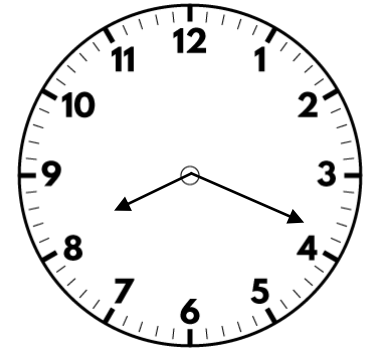
60

3) Multiply 4.36 by 100

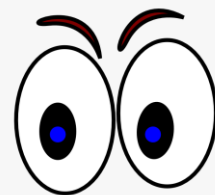
436

4) Work out  $\frac{3}{4} + \frac{3}{5}$

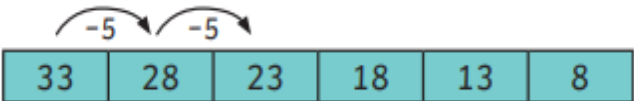
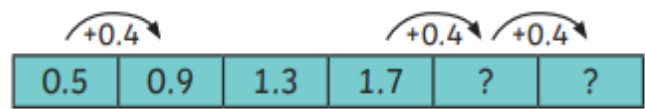
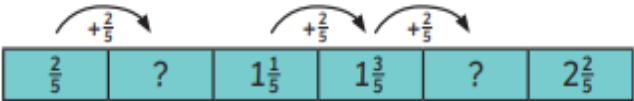
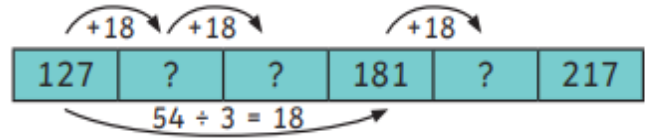
$1\frac{7}{20}$



<https://corbettmathsprimary.com/2018/07/16/equations-video/>



# Extra help....

| Key Vocabulary    | Linear Number Sequences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| term to term rule | A linear number sequence is a sequence where each value increases or decreases by the same amount each time. Each number in a linear number sequence is called a <b>term</b> . The constant change between each number is called the term to term rule. To identify the <b>term to term rule</b> , find the difference between two adjacent terms.                                                                                                                                                                                                                                             |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| variable          | When you know the term to term rule, you can use it to find the next number in the sequence. It can also be used to find a missing number within a sequence.                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| unknown           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                           |
| expression        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                           |
| equation          | Forming Expressions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                     | Forming Equations                                                                                                                                                                                                                                                                                                                                                         |
| formula           | <div> <div>An expression is a group of numbers, letters and operation symbols.</div> <div> <div>Add 14 to <math>a</math></div> <div>Subtract 20 from <math>b</math></div> <div>Multiply <math>c</math> by 4</div> <div>12 more than <math>d</math></div> <div>Multiply <math>e</math> by 3 and subtract 5</div> <div>Add 12 to <math>f</math> and then multiply by 2</div> </div> <div> <div><math>a + 14</math></div> <div><math>b - 20</math></div> <div><math>4c</math></div> <div><math>d + 12</math></div> <div><math>3e - 5</math></div> <div><math>2(f + 12)</math></div> </div> </div> |                                                                                     | <div> <div><math>a + 14 = 20</math></div> <div><math>b - 20 = 15</math></div> <div><math>4c = 28</math></div> <div><math>d + 12 = 30</math></div> <div><math>3e - 5 = 10</math></div> <div><math>2(f + 12) = 44</math></div> </div> <div>An equation is a number statement with an equal sign (=). Expressions on either side of the equal sign are of equal value.</div> |
| one-step equation | Formulas / Formulae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| two-step equation |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| substitution      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| pairs of unknowns |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| enumerate         | <div>(The word formula has two possible plural forms, formulae and formulas.)</div> <div>A formula is a special type of equation that shows the relationship between different substituted variables. Formulas are often used in geometry to find area and volume.</div> <div> <div>Area of rectangle = length × width</div> <div>Area of triangle = (base × height) ÷ 2</div> <div>(12.5 × hours worked) + 25 = cost of job</div> </div>                                                                                                                                                      |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
|                   |  visit <a href="https://www.twinkl.com">twinkl.com</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |

| Algebra                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------|
| Key Vocabulary                                                                                                                           |
| term to term rule                                                                                                                        |
| variable                                                                                                                                 |
| unknown                                                                                                                                  |
| expression                                                                                                                               |
| equation                                                                                                                                 |
| formula                                                                                                                                  |
| one-step equation                                                                                                                        |
| two-step equation                                                                                                                        |
| substitution                                                                                                                             |
| pairs of unknowns                                                                                                                        |
| enumerate                                                                                                                                |
|  visit <a href="https://www.twinkl.com">twinkl.com</a> |

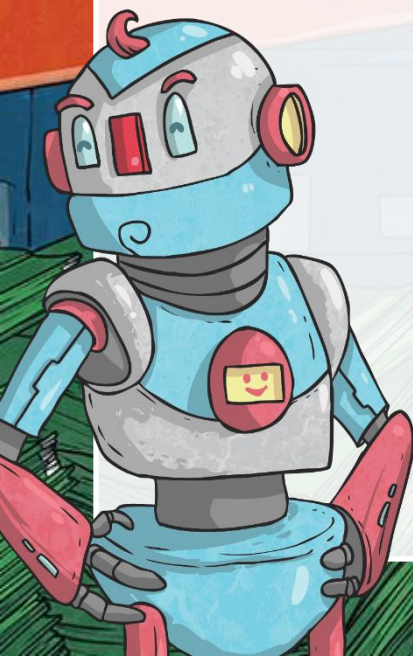
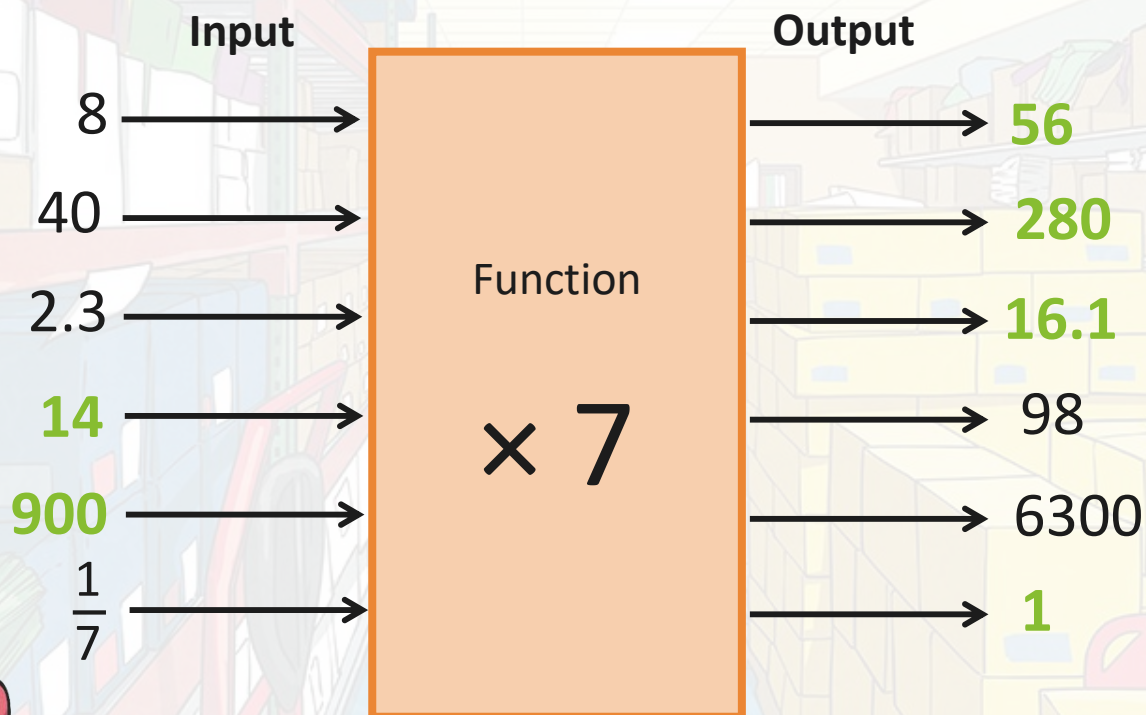
| Algebra                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------|
| Key Vocabulary                                                                                                                            |
| term to term rule                                                                                                                         |
| variable                                                                                                                                  |
| unknown                                                                                                                                   |
| expression                                                                                                                                |
| equation                                                                                                                                  |
| formula                                                                                                                                   |
| one-step equation                                                                                                                         |
| two-step equation                                                                                                                         |
| substitution                                                                                                                              |
| pairs of unknowns                                                                                                                         |
| enumerate                                                                                                                                 |
|  visit <a href="https://www.twinkl.com">twinkl.com</a> |

| Algebra                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------|
| Key Vocabulary                                                                                                                             |
| term to term rule                                                                                                                          |
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| expression                                                                                                                                 |
| equation                                                                                                                                   |
| formula                                                                                                                                    |
| one-step equation                                                                                                                          |
| two-step equation                                                                                                                          |
| substitution                                                                                                                               |
| pairs of unknowns                                                                                                                          |
| enumerate                                                                                                                                  |
|  visit <a href="https://www.twinkl.com">twinkl.com</a> |

| Algebra                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------|
| Key Vocabulary                                                                                                                              |
| term to term rule                                                                                                                           |
| variable                                                                                                                                    |
| unknown                                                                                                                                     |
| expression                                                                                                                                  |
| equation                                                                                                                                    |
| formula                                                                                                                                     |
| one-step equation                                                                                                                           |
| two-step equation                                                                                                                           |
| substitution                                                                                                                                |
| pairs of unknowns                                                                                                                           |
| enumerate                                                                                                                                   |
|  visit <a href="https://www.twinkl.com">twinkl.com</a> |



This is a one-step function machine.  
Give the missing inputs and outputs.





Dora is completing the table.



She's trying to find a rule to help her find the number of legs 60 dogs would have altogether.

|                |   |   |   |   |   |    |    |
|----------------|---|---|---|---|---|----|----|
| Number of dogs | 1 | 2 | 3 | 4 | 5 | 10 | 60 |
| Number of legs |   |   |   |   |   |    |    |

Can you help her? What's the 'rule'?

I can prove it by...  
I think that because....



Dora is completing the table.



She's trying to find a rule to help her find the number of legs 60 dogs would have altogether.

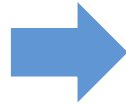
|                |   |   |    |    |    |    |     |
|----------------|---|---|----|----|----|----|-----|
| Number of dogs | 1 | 2 | 3  | 4  | 5  | 10 | 60  |
| Number of legs | 4 | 8 | 12 | 16 | 20 | 40 | 240 |

Can you help her?

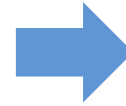
Input

Output

5



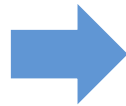
$\times 6$



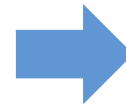
30

$5 \times 6$

27

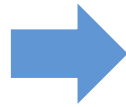


$+ 9$

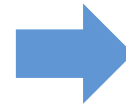


?

?



$- 3$

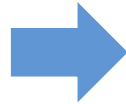


46

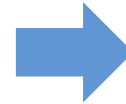
Input

Output

5

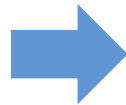


$\times 6$

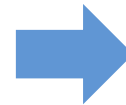


30

27

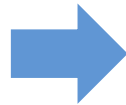


$+ 9$

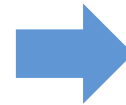


36

49



$- 3$



46

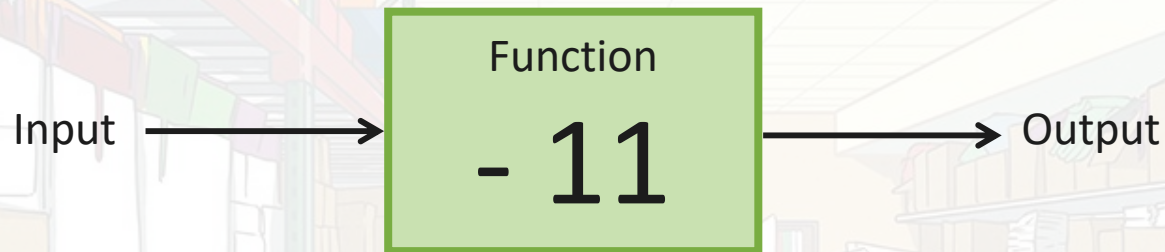
$$\square - 3 = 46$$

$$46 + 3 =$$

**INVERSE!**

# Solve the problem...

Do you agree or disagree with each child's statement about this function machine? Prove it!



Emily is correct. When we subtract an odd number from an odd number, we will always get an even number.

Charlie is incorrect. If we inputted the number 10, for example, then the function machine would give an output of -1 which is less than 11.

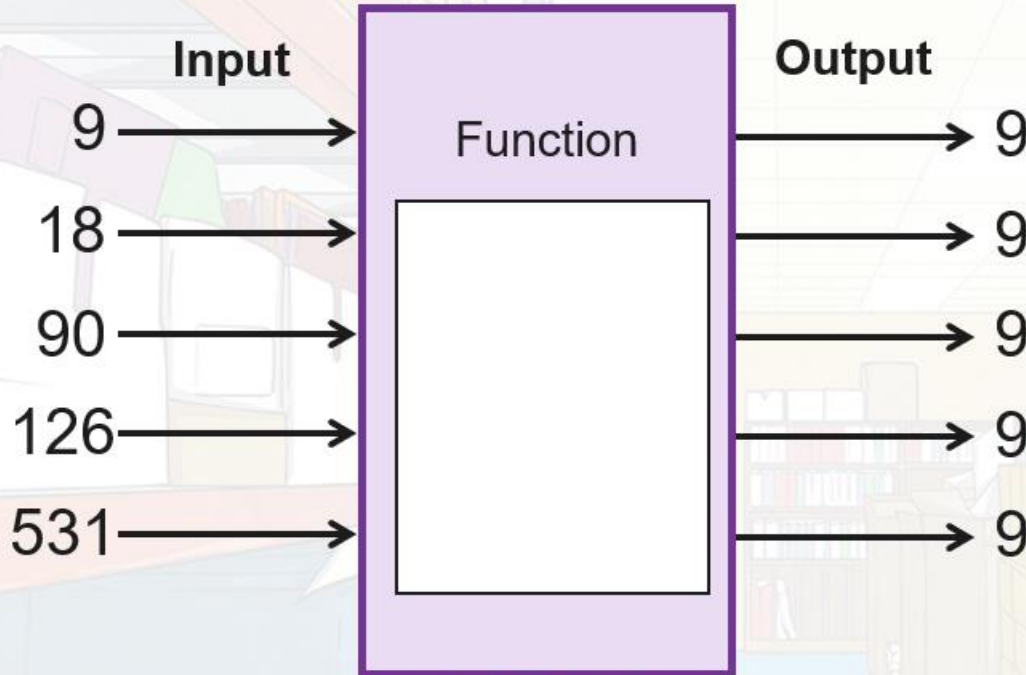
Charlie

Emily

# Squares- Guided Mrs Lund

Find a Rule – One Step

Deeper



I think this function machine has malfunctioned as the output is always the same for whichever number has been input.



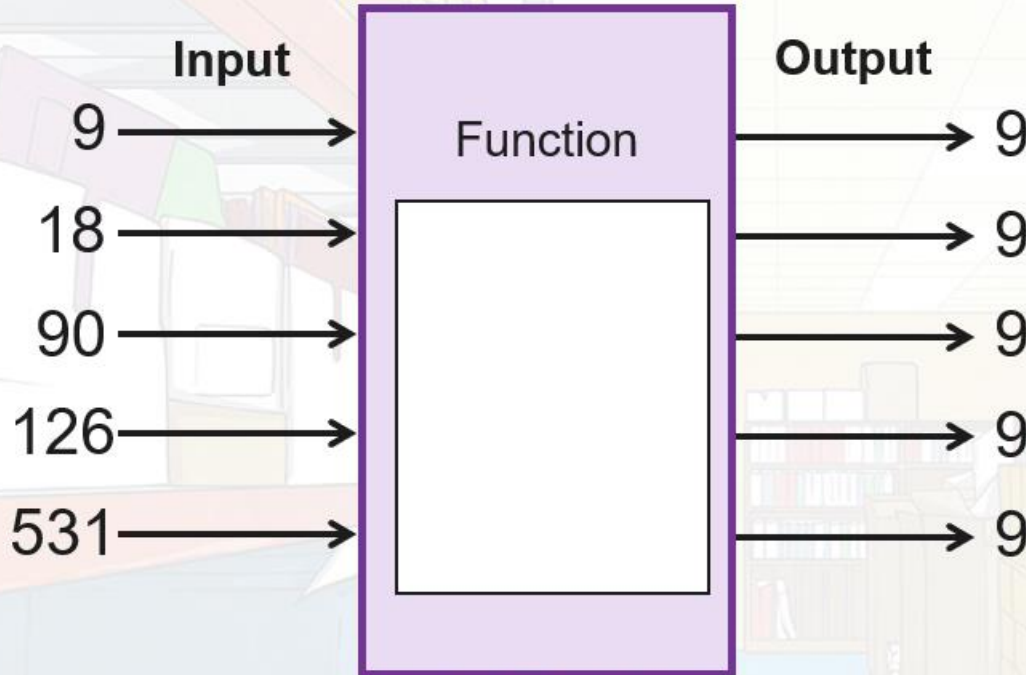
Is Dimitri's statement correct? Explain your reasoning.

## Over to you...

# Squares- Guided Mrs Lund

Find a Rule – One Step

Deeper



I think this function machine has malfunctioned as the output is always the same for whichever number has been input.



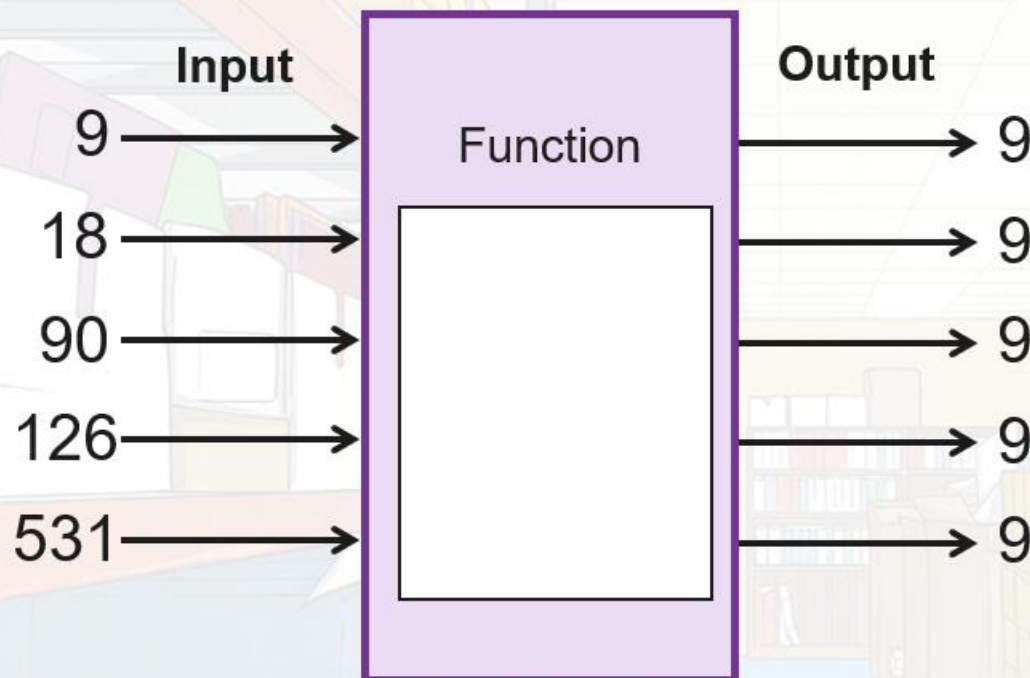
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# Squares- Guided Mrs Lund

Find a Rule – One Step

Deeper



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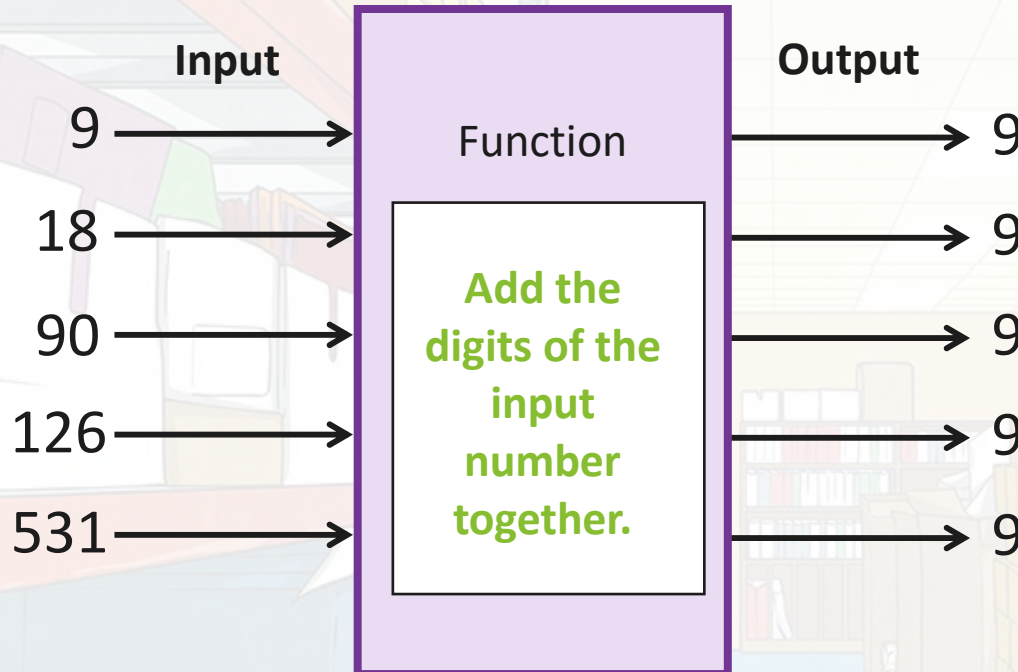


Is Dimitri's statement correct? Explain your reasoning.

# Squares- Guided Mrs Lund

Find a Rule – One Step

Deeper



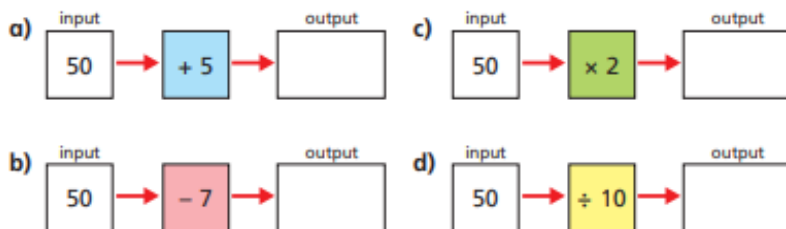
I think this function machine has malfunctioned as the output is always the same for whichever number has been input.



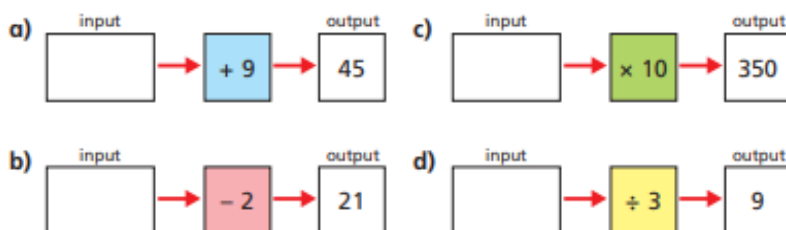
Is Dimitri's statement correct? Explain your reasoning.

Dimitri is incorrect as the function machine adds the digits of the input number together. Every number inputted so far has a digit sum of 9.

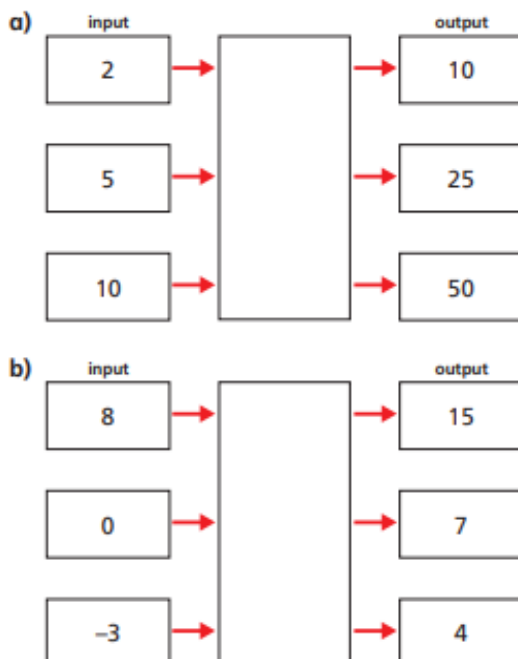
3 Calculate the outputs for the function machines below.



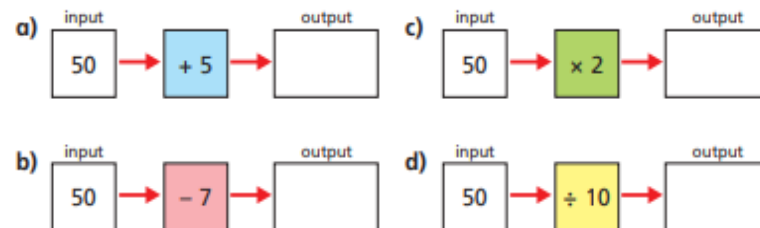
4 Calculate the inputs for the function machines.



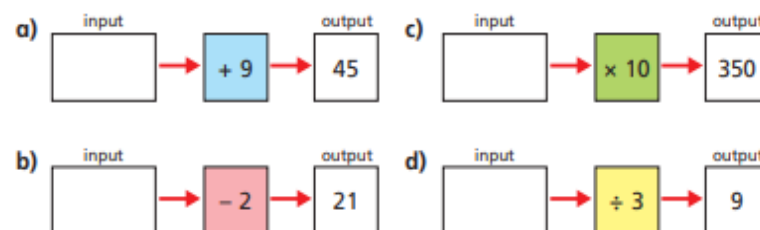
5 Write the missing functions in the function machines.



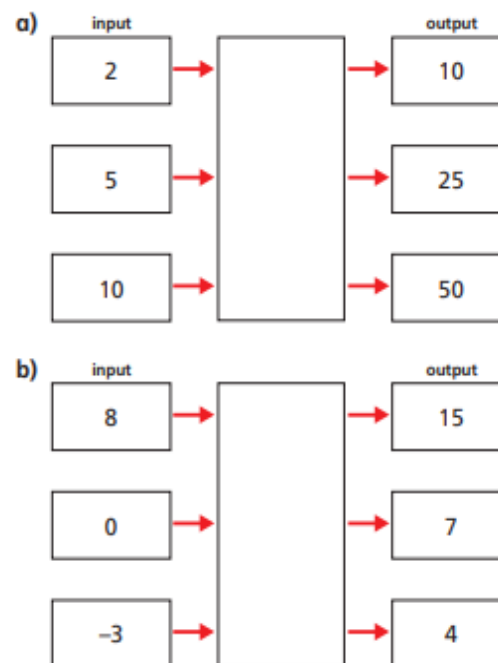
3 Calculate the outputs for the function machines below.



4 Calculate the inputs for the function machines.



5 Write the missing functions in the function machines.



Squares –  
independent  
ques 3-5

Watch and do <https://vimeo.com/499979721>

## Triangles – use objects

- 1 Whitney makes a pattern of triangles using sticks.

Complete the table below.



|                     |   |   |   |   |   |    |    |
|---------------------|---|---|---|---|---|----|----|
| Number of triangles | 1 | 2 | 3 | 4 | 5 | 10 |    |
| Number of sticks    |   |   |   |   |   |    | 90 |

- 2 Complete the tables.



To find the number of wheels, you multiply the number of bicycles by 2

a)

|                    |   |   |   |    |    |    |
|--------------------|---|---|---|----|----|----|
| Number of bicycles | 1 | 2 | 5 |    |    | 16 |
| Number of wheels   | 2 |   |   | 18 | 24 |    |

b)

|                |   |    |   |    |    |    |
|----------------|---|----|---|----|----|----|
| Number of ants | 1 | 2  | 5 |    |    | 16 |
| Number of legs |   | 12 |   | 18 | 24 |    |

Explain how to find the number of legs.

---



---



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Watch and do <https://vimeo.com/499979721>

## Triangles – use objects

- 1 Whitney makes a pattern of triangles using sticks.

Complete the table below.



|                     |   |   |   |   |   |    |    |
|---------------------|---|---|---|---|---|----|----|
| Number of triangles | 1 | 2 | 3 | 4 | 5 | 10 |    |
| Number of sticks    |   |   |   |   |   |    | 90 |

- 2 Complete the tables.



To find the number of wheels, you multiply the number of bicycles by 2

a)

|                    |   |   |   |    |    |    |
|--------------------|---|---|---|----|----|----|
| Number of bicycles | 1 | 2 | 5 |    |    | 16 |
| Number of wheels   | 2 |   |   | 18 | 24 |    |

b)

|                |   |    |   |    |    |    |
|----------------|---|----|---|----|----|----|
| Number of ants | 1 | 2  | 5 |    |    | 16 |
| Number of legs |   | 12 |   | 18 | 24 |    |

Explain how to find the number of legs.

---



---



---

- 1 Whitney makes a pattern of triangles using sticks.

Complete the table below.



|                     |   |   |   |    |    |    |    |
|---------------------|---|---|---|----|----|----|----|
| Number of triangles | 1 | 2 | 3 | 4  | 5  | 10 | 30 |
| Number of sticks    | 3 | 6 | 9 | 12 | 15 | 30 | 90 |

- 2 Complete the tables.



To find the number of wheels, you multiply the number of bicycles by 2

a)

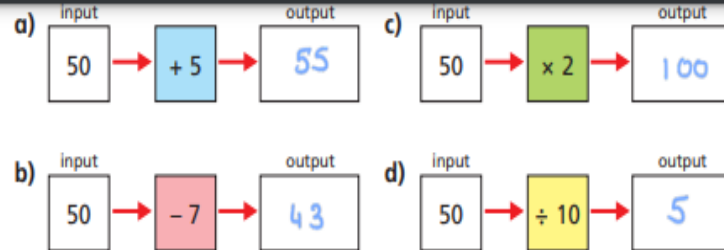
|                    |   |   |    |    |    |    |
|--------------------|---|---|----|----|----|----|
| Number of bicycles | 1 | 2 | 5  | 9  | 12 | 16 |
| Number of wheels   | 2 | 4 | 10 | 18 | 24 | 32 |

b)

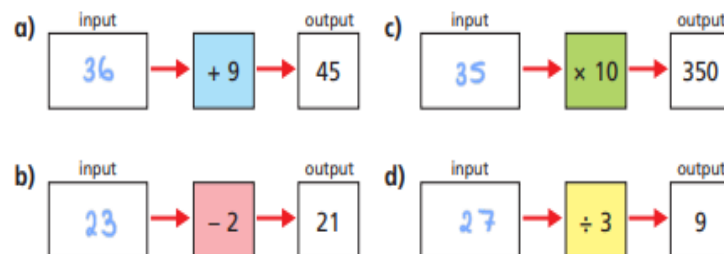
|                |   |    |    |    |    |    |
|----------------|---|----|----|----|----|----|
| Number of ants | 1 | 2  | 5  | 3  | 4  | 16 |
| Number of legs | 6 | 12 | 30 | 18 | 24 | 96 |

Explain how to find the number of legs.

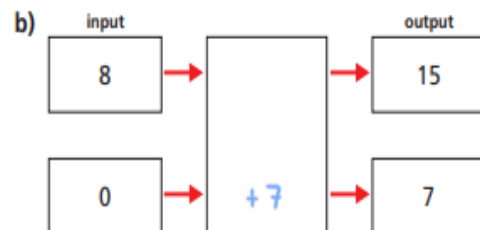
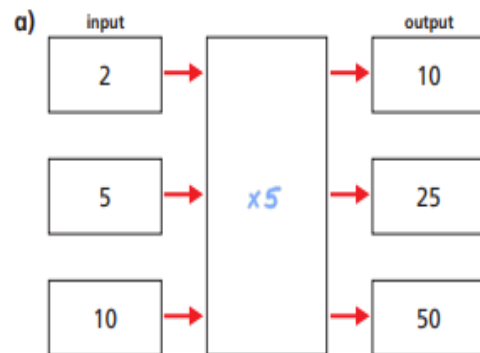
Multiply the number of ants by 6



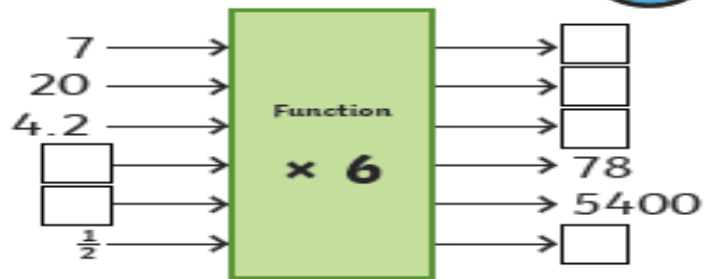
- 4 Calculate the inputs for the function machines.



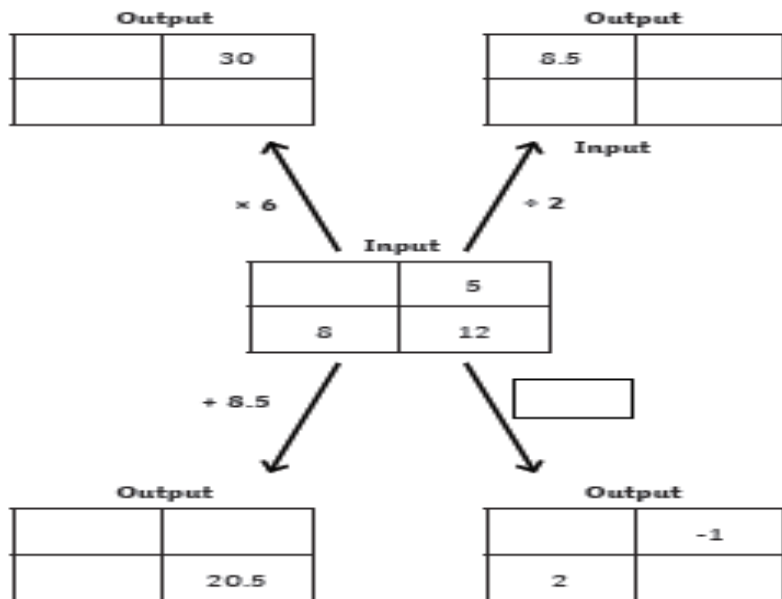
- 5 Write the missing functions in the function machines.



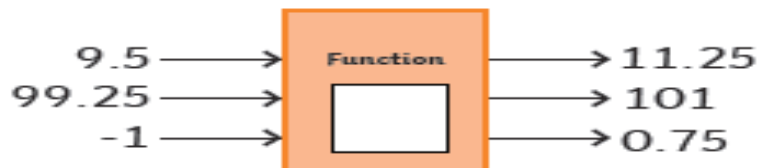
- 1) This is a one-step function machine. Give the missing inputs and outputs.



- 2) This one-step function machine has four different outputs. Find the missing outputs, inputs and function.



- 3) Give the missing function for this one-step machine.

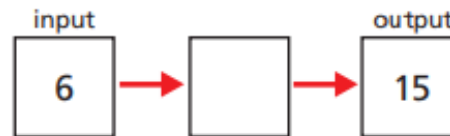


# Hexagons (Miss Avery support) and Octagons

# Challenge

8

Here is a function machine.



Dora

The rule is add 9

The rule is  
multiply by 2.5



Dexter

Who do you agree with? \_\_\_\_\_

Explain your answer.

8

Here is a function machine.



The rule is add 9

Dora

The rule is  
multiply by 2.5

Dexter

Who do you agree with? \_\_\_\_\_

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The rule is add 9

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The rule is  
multiply by 2.5

Dexter

Who do you agree with? \_\_\_\_\_

Explain your answer.

- 9 In a function machine, if the input is 3 and the output is 12, what could the function be?

Write two different functions and complete the table of outputs for each function.



|        |    |   |   |    |    |     |
|--------|----|---|---|----|----|-----|
| Input  | 3  | 4 | 5 | 10 | 20 | 100 |
| Output | 12 |   |   |    |    |     |



|        |    |   |   |    |    |     |
|--------|----|---|---|----|----|-----|
| Input  | 3  | 4 | 5 | 10 | 20 | 100 |
| Output | 12 |   |   |    |    |     |

- 9 In a function machine, if the input is 3 and the output is 12, what could the function be?

Write two different functions and complete the table of outputs for each function.



|        |    |   |   |    |    |     |
|--------|----|---|---|----|----|-----|
| Input  | 3  | 4 | 5 | 10 | 20 | 100 |
| Output | 12 |   |   |    |    |     |



|        |    |   |   |    |    |     |
|--------|----|---|---|----|----|-----|
| Input  | 3  | 4 | 5 | 10 | 20 | 100 |
| Output | 12 |   |   |    |    |     |

- 9 In a function machine, if the input is 3 and the output is 12, what could the function be?

Write two different functions and complete the table of outputs for each function.



|        |    |   |   |    |    |     |
|--------|----|---|---|----|----|-----|
| Input  | 3  | 4 | 5 | 10 | 20 | 100 |
| Output | 12 |   |   |    |    |     |



|        |    |   |   |    |    |     |
|--------|----|---|---|----|----|-----|
| Input  | 3  | 4 | 5 | 10 | 20 | 100 |
| Output | 12 |   |   |    |    |     |

- 9 In a function machine, if the input is 3 and the output is 12, what could the function be?

Write two different functions and complete the table of outputs for each function.



|        |    |   |   |    |    |     |
|--------|----|---|---|----|----|-----|
| Input  | 3  | 4 | 5 | 10 | 20 | 100 |
| Output | 12 |   |   |    |    |     |



|        |    |   |   |    |    |     |
|--------|----|---|---|----|----|-----|
| Input  | 3  | 4 | 5 | 10 | 20 | 100 |
| Output | 12 |   |   |    |    |     |

# Daily Maths Meeting



Monday-  
Key Skills

# Morning task- Percentage revision test- Whiterose

Tues 8.2.22

LO: To find a rule- two-step problems

1)  $12 \times \square = 84$

$12 + \square = 84$

2)  $55 \div \square = 5$

$55 - \square = 5$

3)  $\square \div 6 = 10$

$\square \div 6 = 20$

4)  $\square \times 8 = 72$

$\square \times 9 = 72$

Do now-  
in books-

$$1) 12 \times \square = 84$$

$$12 + \square = 84$$

$$2) 55 \div \square = 5$$

$$55 - \square = 5$$

$$3) \square \div 6 = 10$$

$$\square \div 6 = 20$$

$$4) \square \times 8 = 72$$

$$\square \times 9 = 72$$

$$1) 12 \times \square = 84$$

$$12 + \square = 84$$

$$2) 55 \div \square = 5$$

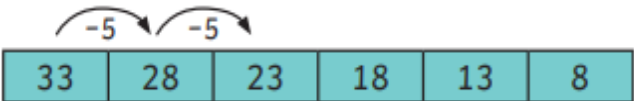
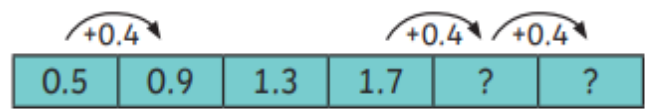
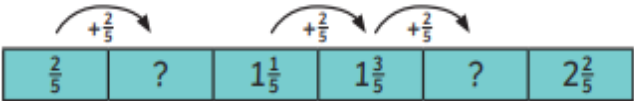
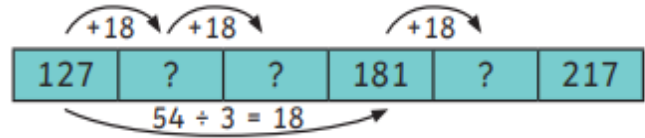
$$55 - \square = 5$$

$$3) \square \div 6 = 10$$

$$\square \div 6 = 20$$

$$4) \square \times 8 = 72$$

$$\square \times 9 = 72$$

| Key Vocabulary    | Linear Number Sequences                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| term to term rule | A linear number sequence is a sequence where each value increases or decreases by the same amount each time. Each number in a linear number sequence is called a <b>term</b> . The constant change between each number is called the term to term rule. To identify the <b>term to term rule</b> , find the difference between two adjacent terms.                                                                                                                                                                                                                                             |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| variable          | When you know the term to term rule, you can use it to find the next number in the sequence. It can also be used to find a missing number within a sequence.                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| unknown           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                           |
| expression        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                           |
| equation          | Forming Expressions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                     | Forming Equations                                                                                                                                                                                                                                                                                                                                                         |
| formula           | <div> <div>An expression is a group of numbers, letters and operation symbols.</div> <div> <div>Add 14 to <math>a</math></div> <div>Subtract 20 from <math>b</math></div> <div>Multiply <math>c</math> by 4</div> <div>12 more than <math>d</math></div> <div>Multiply <math>e</math> by 3 and subtract 5</div> <div>Add 12 to <math>f</math> and then multiply by 2</div> </div> <div> <div><math>a + 14</math></div> <div><math>b - 20</math></div> <div><math>4c</math></div> <div><math>d + 12</math></div> <div><math>3e - 5</math></div> <div><math>2(f + 12)</math></div> </div> </div> |                                                                                     | <div> <div><math>a + 14 = 20</math></div> <div><math>b - 20 = 15</math></div> <div><math>4c = 28</math></div> <div><math>d + 12 = 30</math></div> <div><math>3e - 5 = 10</math></div> <div><math>2(f + 12) = 44</math></div> </div> <div>An equation is a number statement with an equal sign (=). Expressions on either side of the equal sign are of equal value.</div> |
| one-step equation | Formulas / Formulae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| two-step equation |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| substitution      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| pairs of unknowns |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| enumerate         | <div>(The word formula has two possible plural forms, formulae and formulas.)</div> <div>A formula is a special type of equation that shows the relationship between different substituted variables. Formulas are often used in geometry to find area and volume.</div> <div> <div>Area of rectangle = length × width</div> <div>Area of triangle = (base × height) ÷ 2</div> <div>(12.5 × hours worked) + 25 = cost of job</div> </div>                                                                                                                                                      |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
|                   |  <a href="https://www.twinkl.com">visit twinkl.com</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |

# Algebra

## Key Vocabulary

term to term rule

variable

unknown

expression

equation

formula

one-step equation

two-step equation

substitution

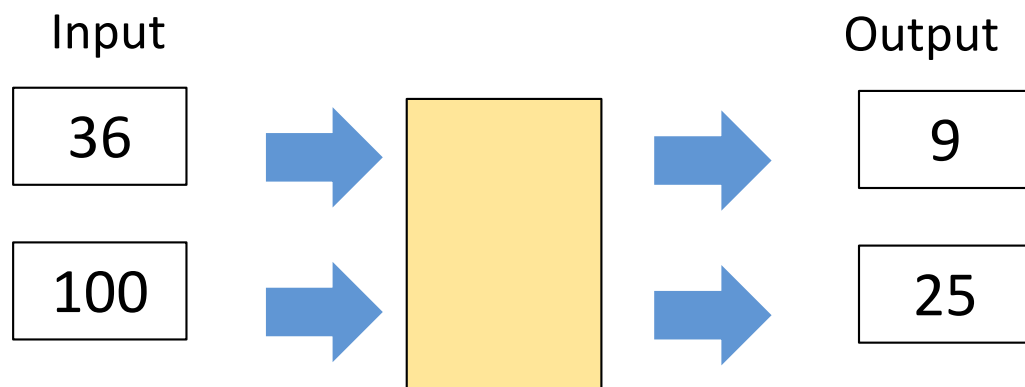
pairs of unknowns

enumerate

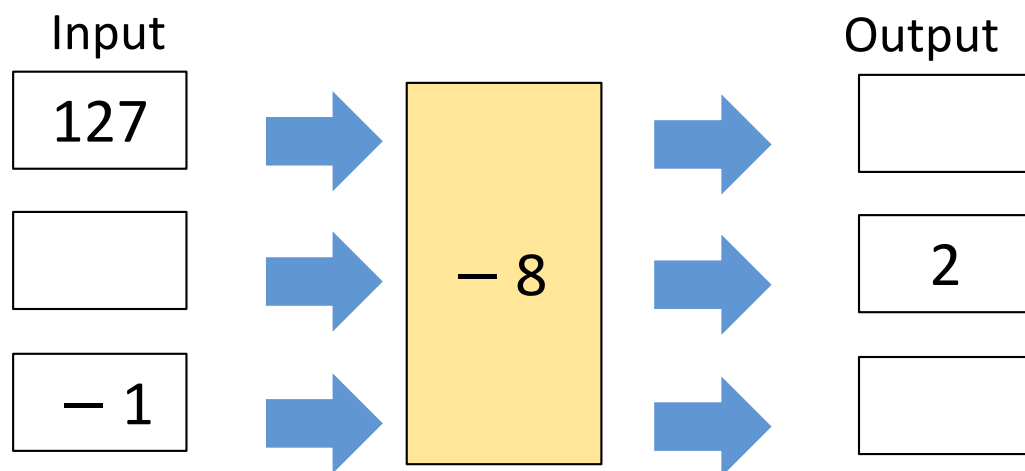


visit [twinkl.com](https://www.twinkl.com)

1) Write the missing function in the function machine.

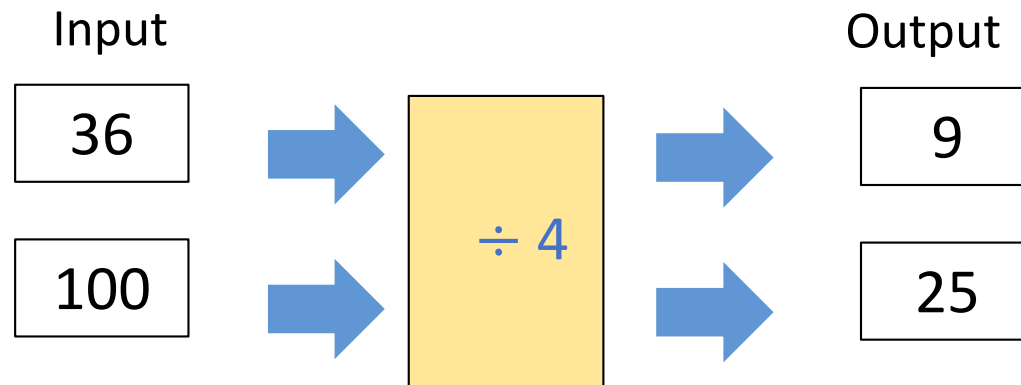


2) Calculate the missing inputs and outputs for the function machine.

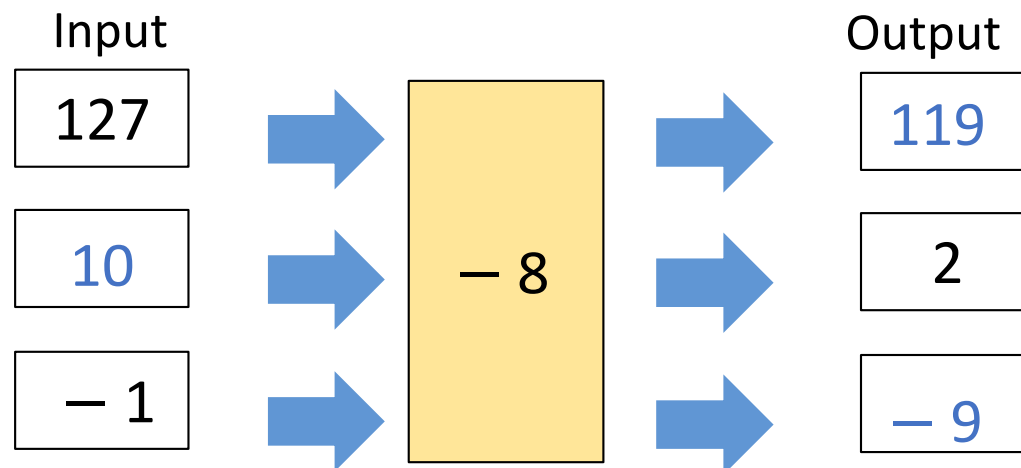


# One step...

1) Write the missing function in the function machine.



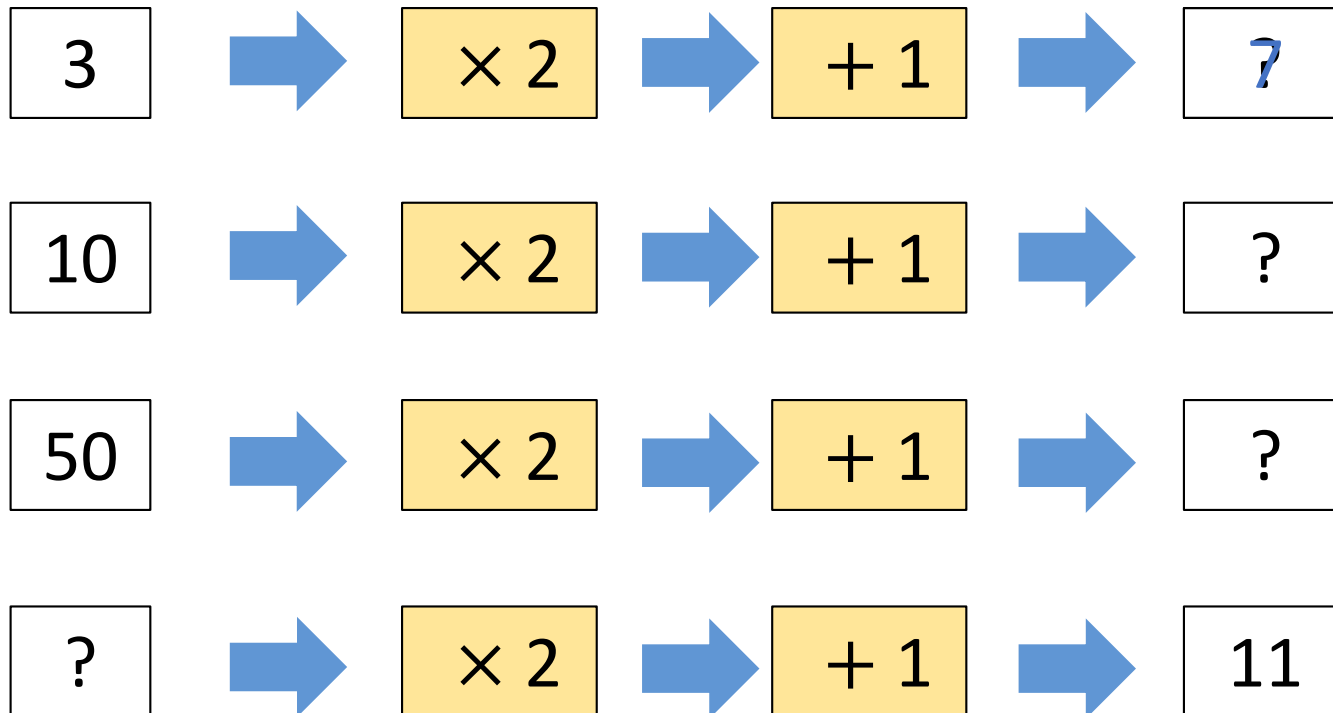
2) Calculate the missing inputs and outputs for the function machine.



A function machine is a way of writing rules.

Input

Output

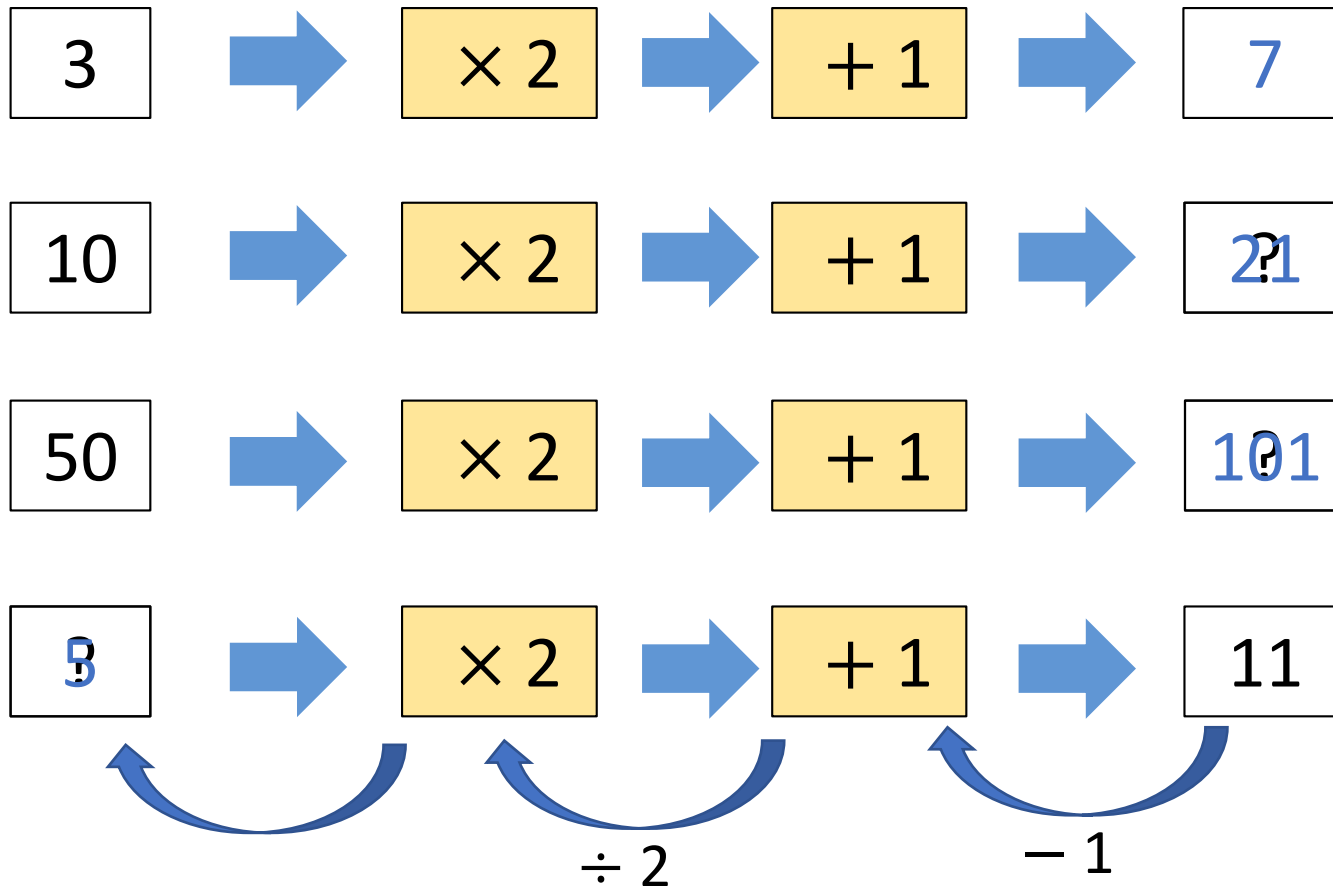


Two step...

A function machine is a way of writing rules.

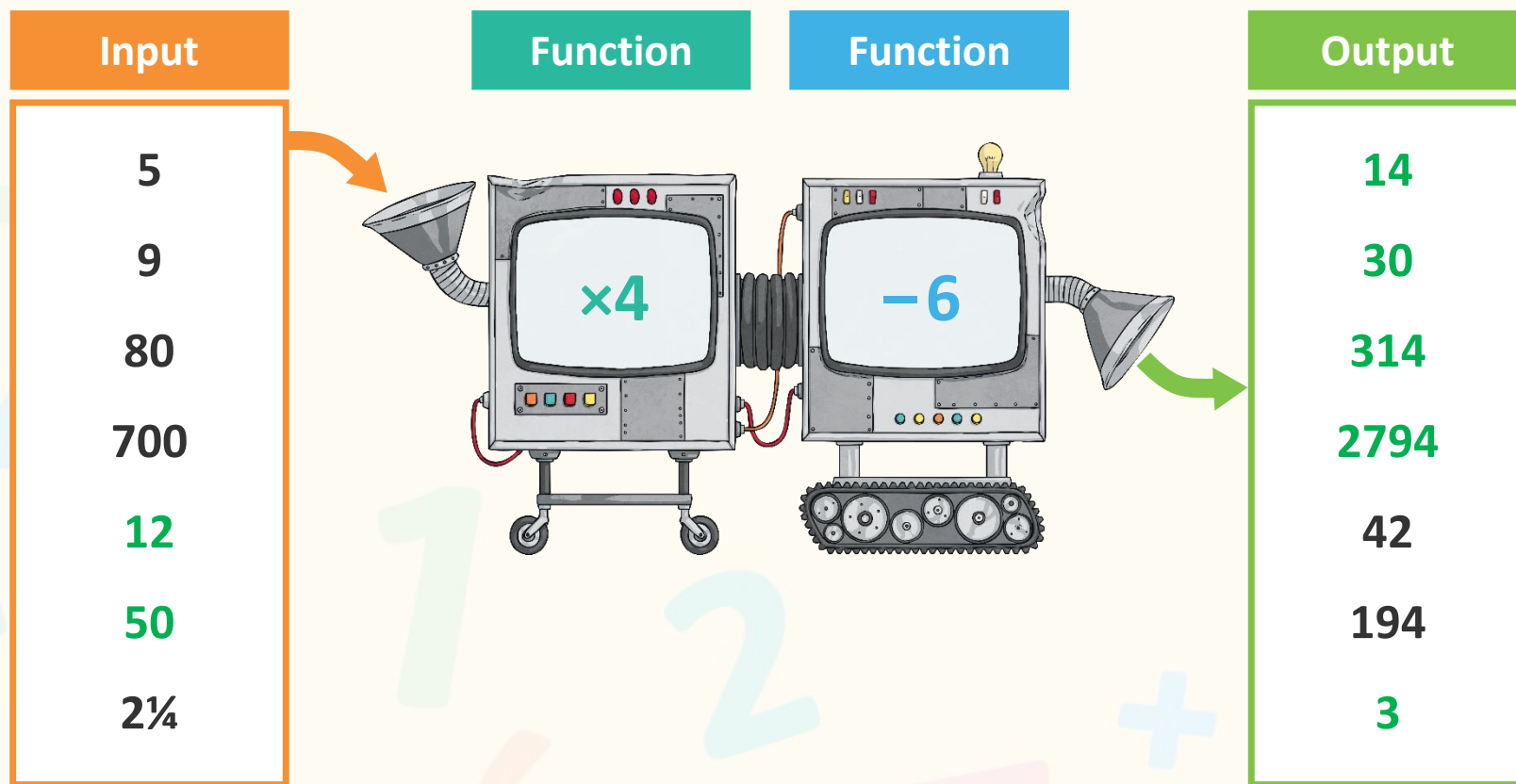
Input

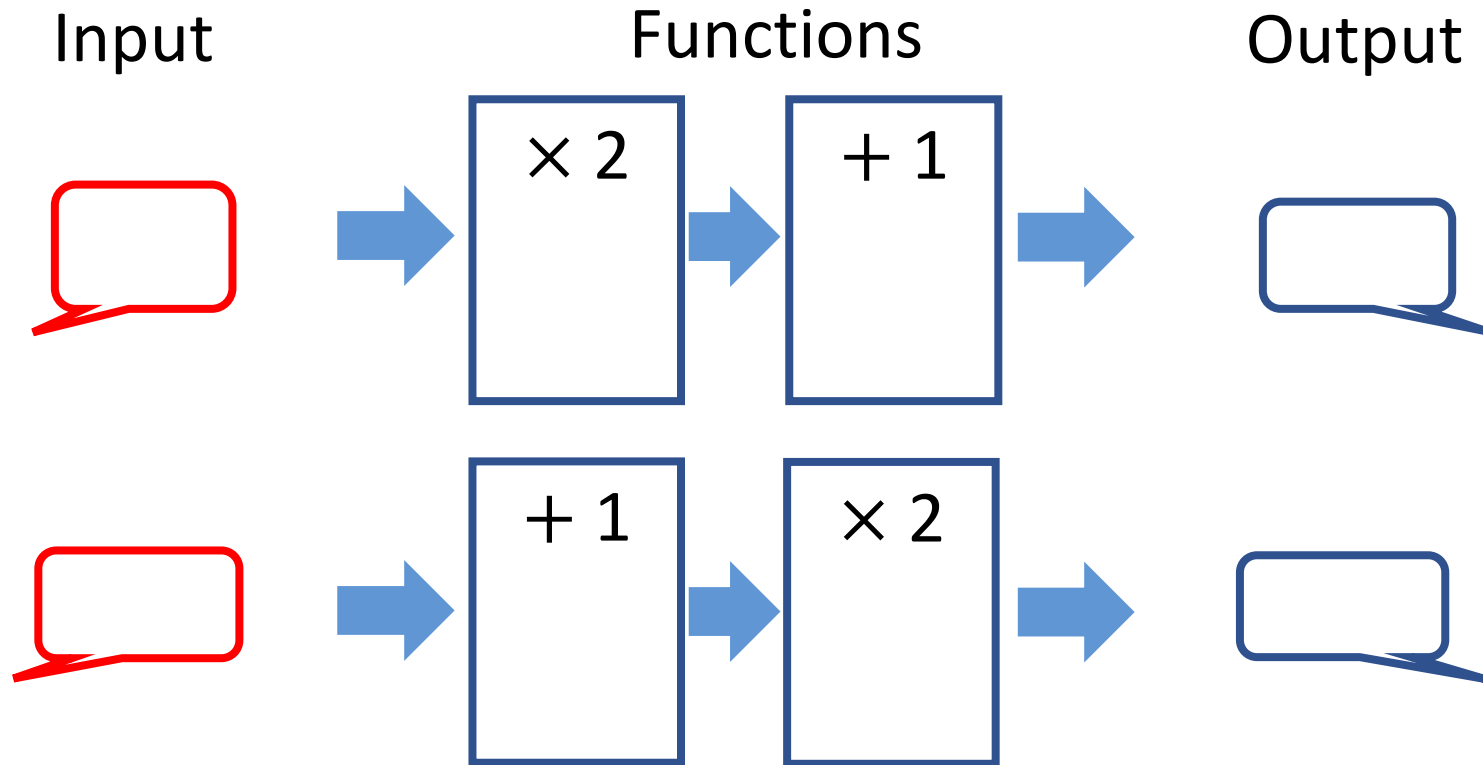
Output





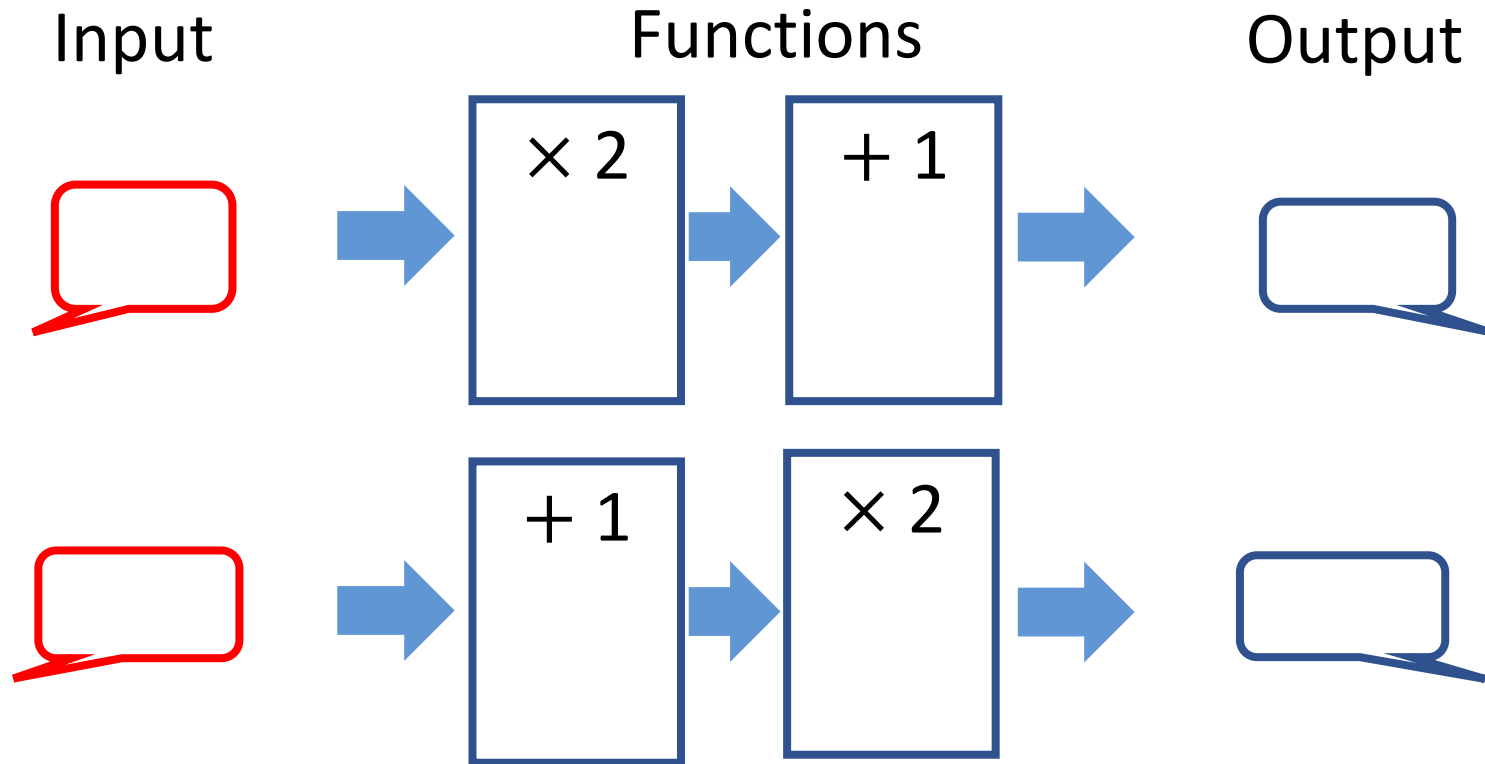
This function machine has two steps.  
Give the missing inputs and outputs for the machine.





I wonder if it makes a difference which order the functions are in ...test with some more numbers

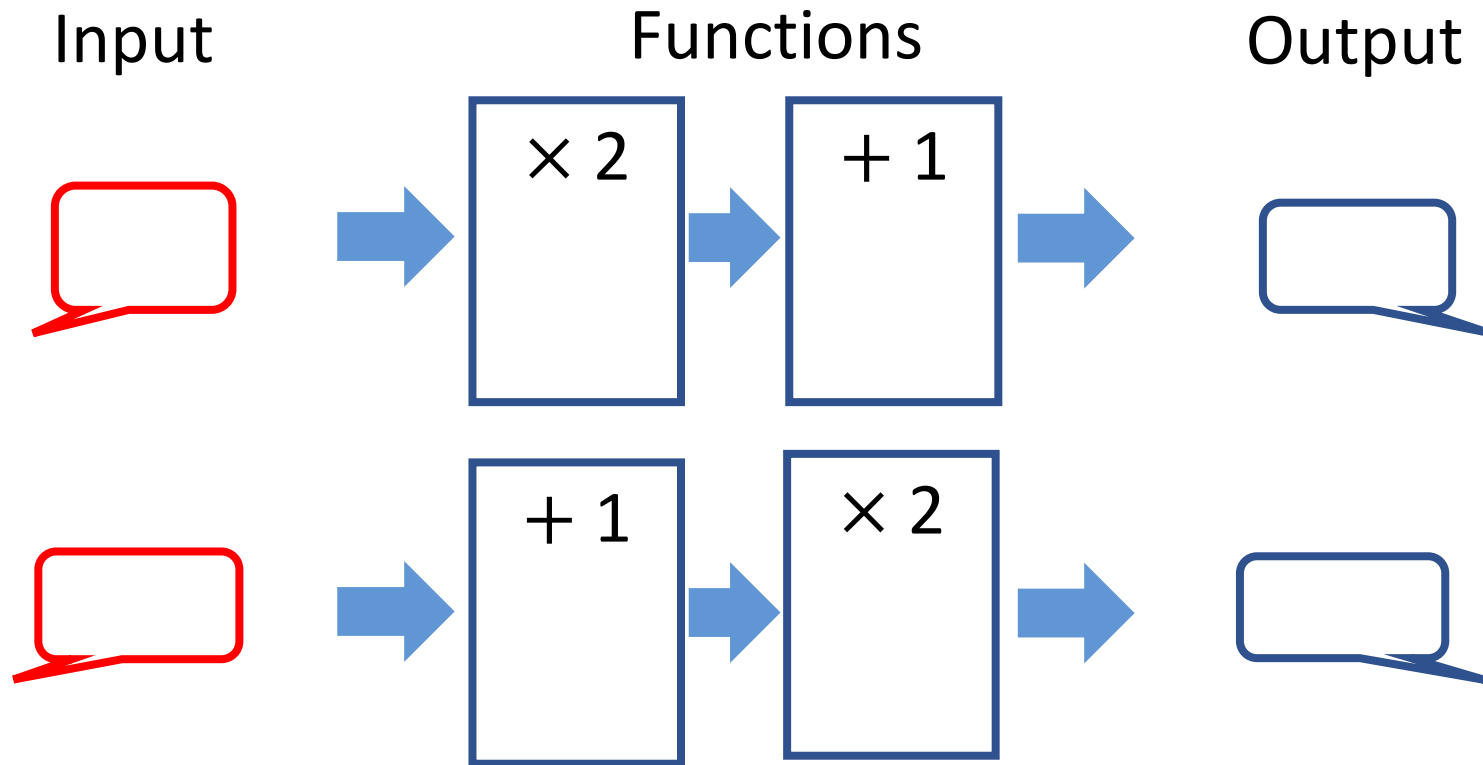




I wonder if it makes a difference which order the functions are in ...test with some more numbers



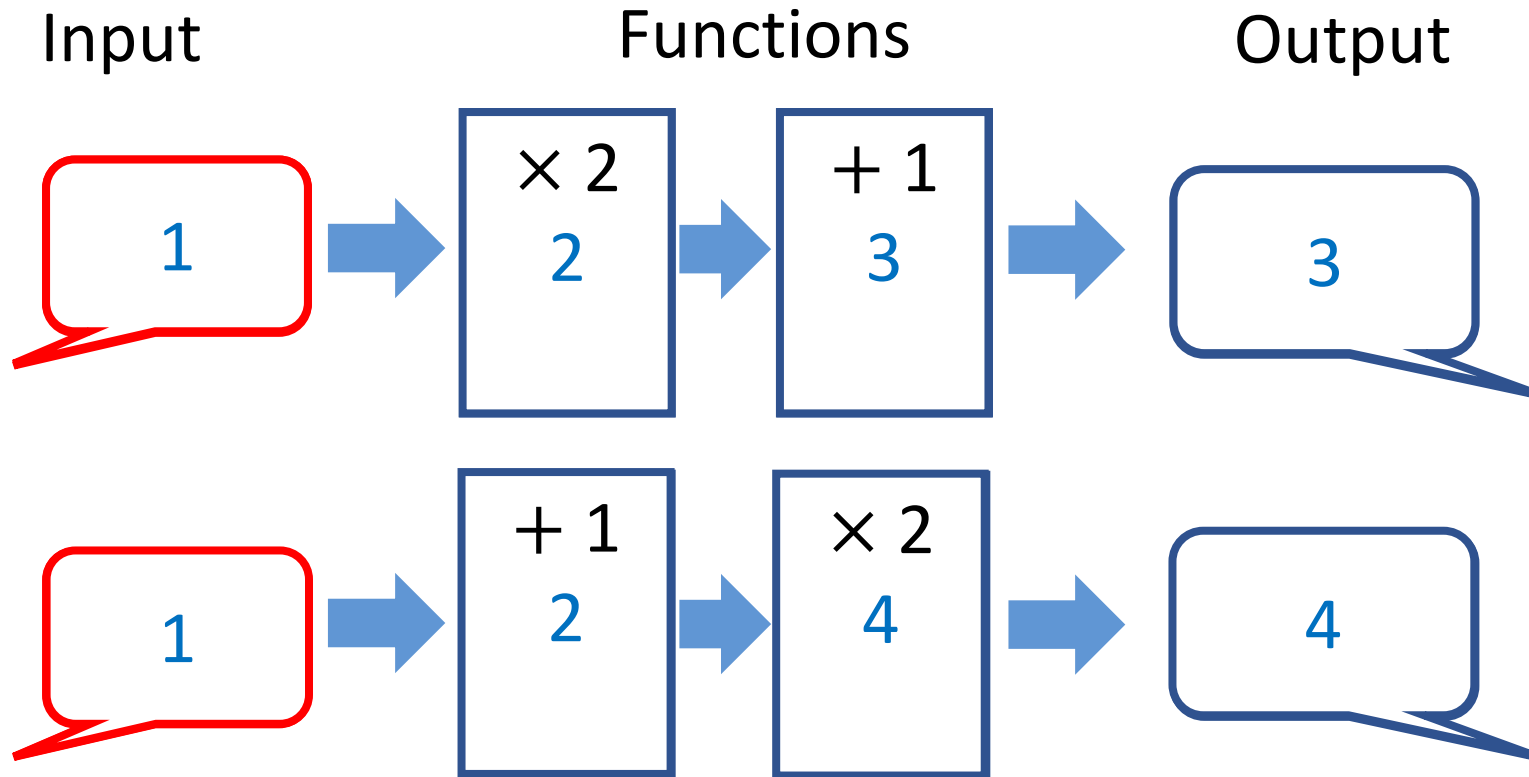
Print- all



I wonder if it makes a difference which order the functions are in ...test with some more numbers



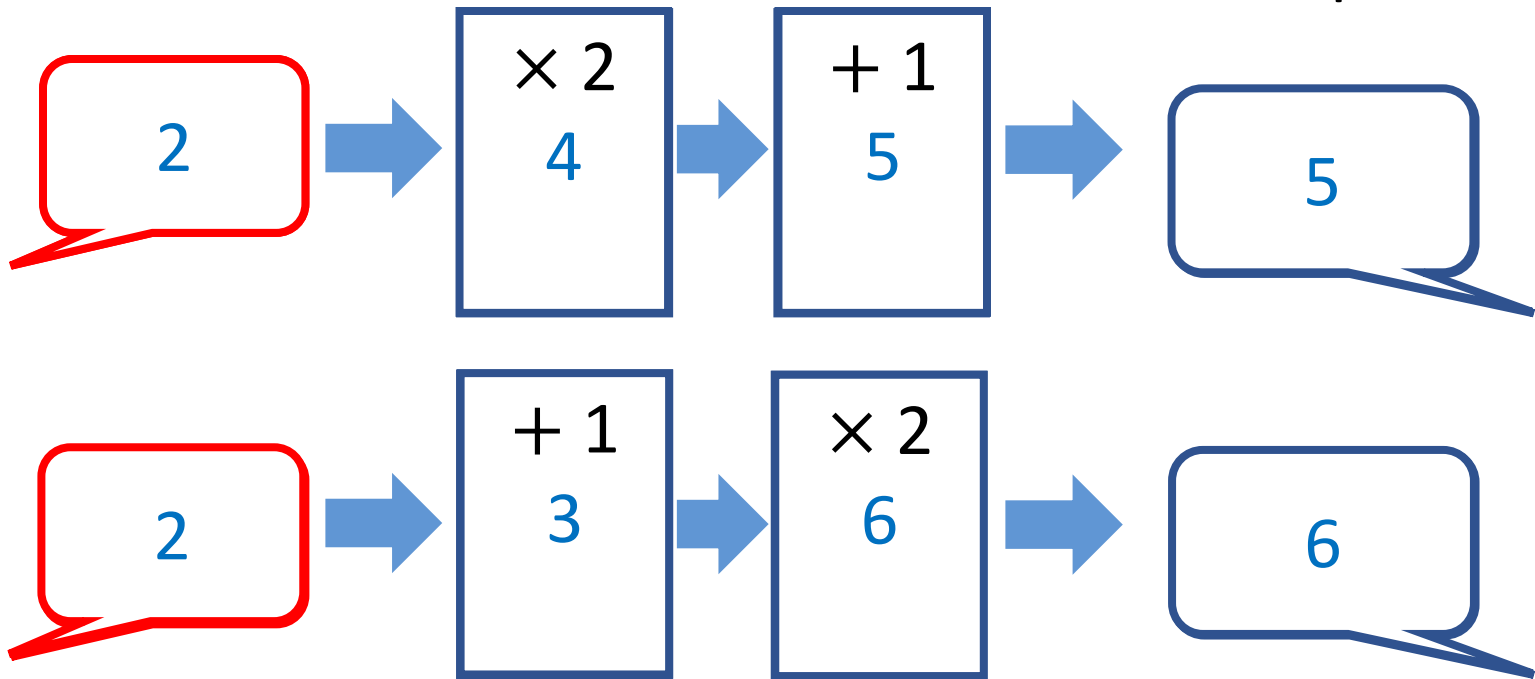
Print- all



Input

Functions

Output



If the inputs are the same,  
the output for the second  
machine is always 1 greater.

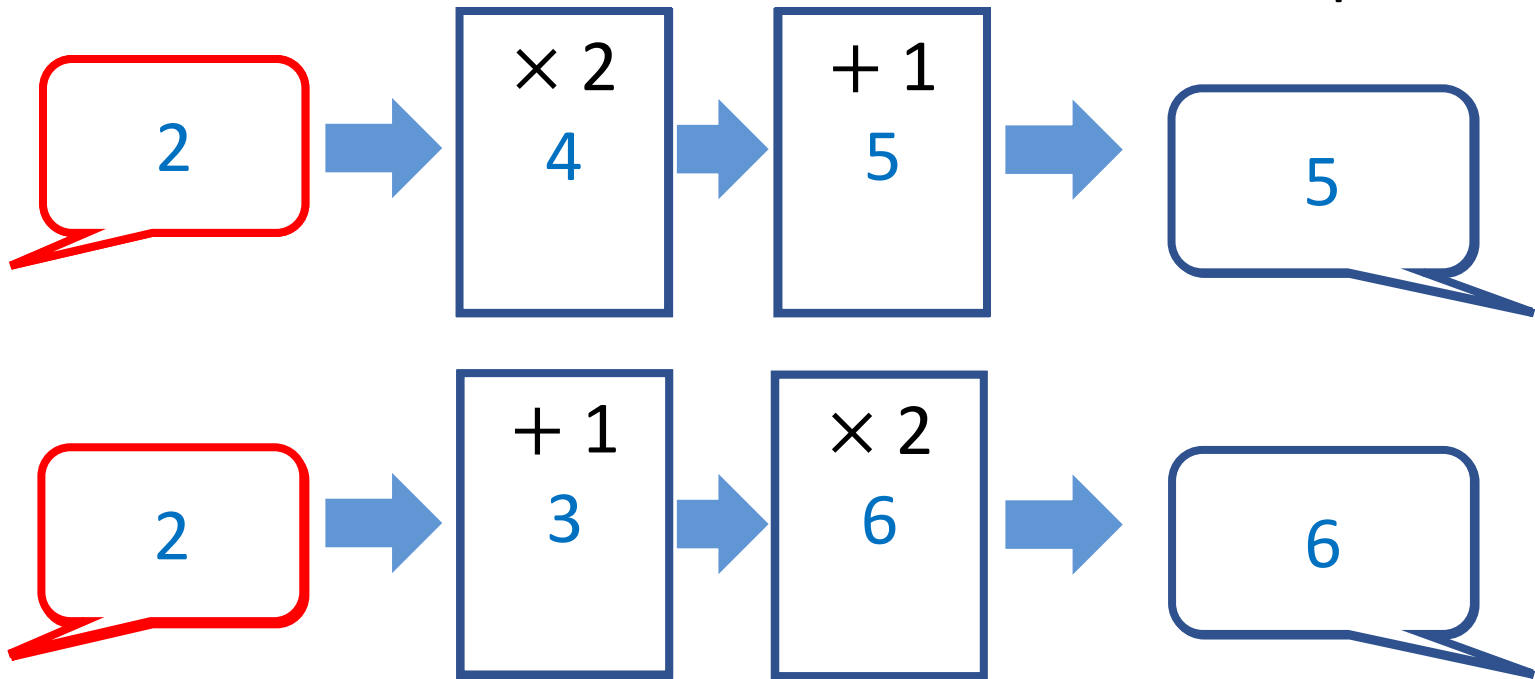


Do you  
agree with  
Dexter?

Input

Functions

Output



If the inputs are the same,  
the output for the second  
machine is always 1 greater.



Do you  
agree with  
Dexter?

If the inputs are the same, the output for the second machine is always 1 greater.

I think this because...  
I can prove it by....

If the inputs are the same,  
the output for the second  
machine is always 1 greater.

If the inputs are the same,  
the output for the second  
machine is always 1 greater.

If the inputs are the same,  
the output for the second  
machine is always 1 greater.

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machine is always 1 greater.

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machine is always 1 greater.

If the inputs are the same,  
the output for the second  
machine is always 1 greater.

If the inputs are the same,  
the output for the second  
machine is always 1 greater.

If the inputs are the same,  
the output for the second  
machine is always 1  
greater.v

If the inputs are the same,  
the output for the second  
machine is always 1 greater.

# Octagons

!)

Input

20

72

132

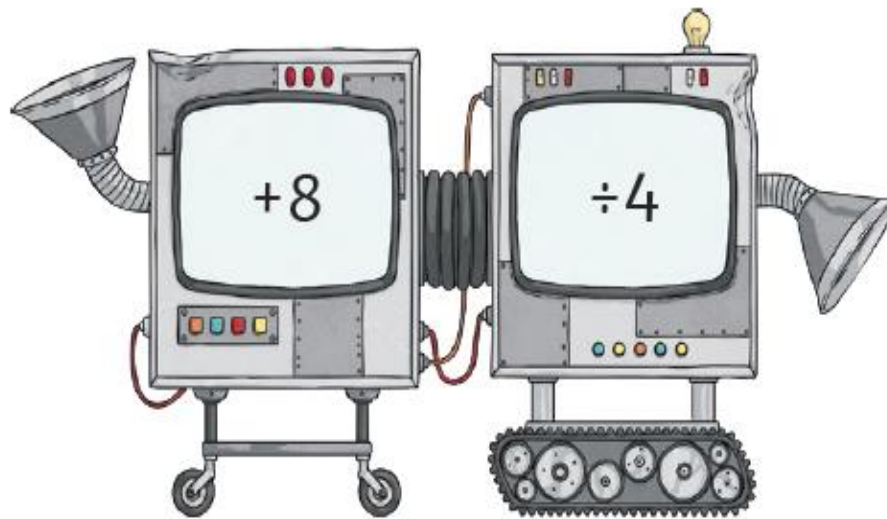
a)

b)

0.8

Function

Function



Output

c)

d)

e)

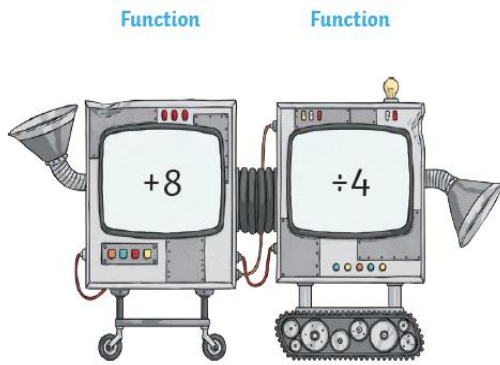
6

16

f)

i)

| Input |
|-------|
| 20    |
| 72    |
| 132   |
| a)    |
| b)    |
| 0.8   |

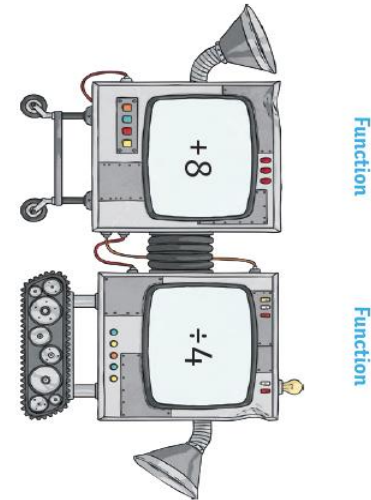


Output

|    |
|----|
| c) |
| d) |
| e) |
| 6  |
| 16 |
| f) |

j)

| Input |
|-------|
| 20    |
| 72    |
| 132   |
| a)    |
| b)    |
| 0.8   |

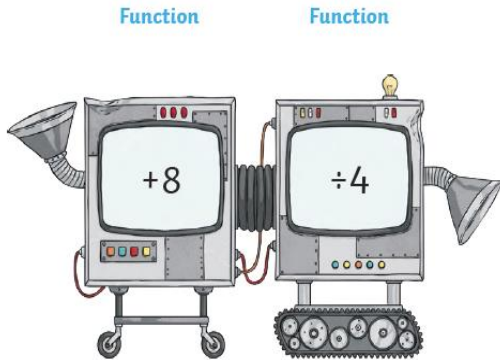


Output

|    |
|----|
| c) |
| d) |
| e) |
| 6  |
| 16 |
| f) |

k)

| Input |
|-------|
| 20    |
| 72    |
| 132   |
| a)    |
| b)    |
| 0.8   |

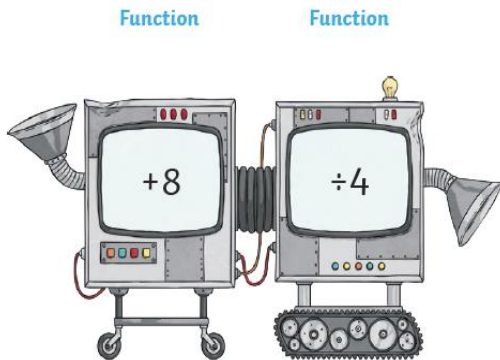


Output

|    |
|----|
| c) |
| d) |
| e) |
| 6  |
| 16 |
| f) |

l)

| Input |
|-------|
| 20    |
| 72    |
| 132   |
| a)    |
| b)    |
| 0.8   |



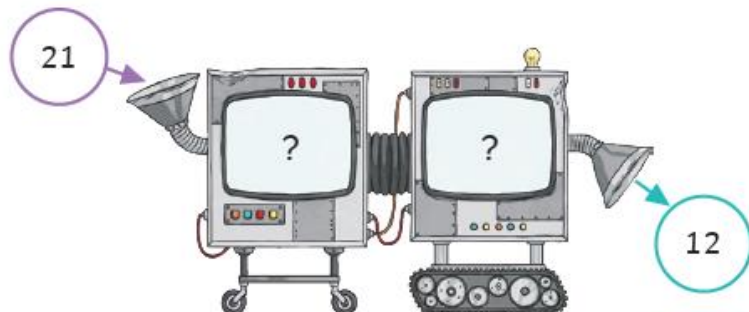
Output

|    |
|----|
| c) |
| d) |
| e) |
| 6  |
| 16 |
| f) |

# Octagons



1) Is each child's statement about the missing functions correct? Prove it!



Ola

---

---

---

---

Thomas

---

---

---

Layla

---

---

---

The missing functions could be a multiplication function followed by an addition function.

Subtraction followed by multiplication could be the functions that are missing.

The missing functions could be addition followed by division.

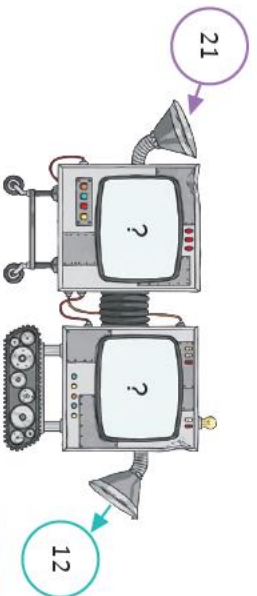
Thomas

Ola

Layla



1) Is each child's statement about the missing functions correct? Prove it!



The missing functions could be a multiplication function followed by an addition function.

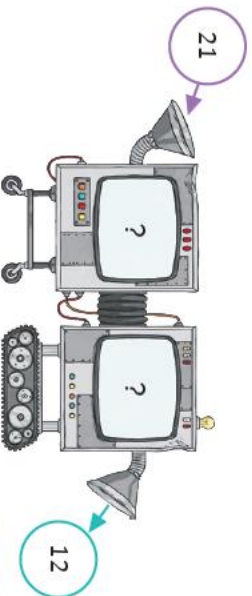
Subtraction followed by multiplication could be the functions that are missing.

The missing functions could be addition followed by division.

Thomas

Layla

1) Is each child's statement about the missing functions correct? Prove it!



The missing functions could be a multiplication function followed by an addition function.

Subtraction followed by multiplication could be the functions that are missing.

The missing functions could be addition followed by division.

Thomas

Layla

Oct Tues



# Number Sequences

Parents: Learning key number sequences by heart is an important skill as it supports calculation and understanding of number values. Children need to be able to count in 2s, 3s and 5s from zero; up to and beyond 100. They also need to be able to count forward and backwards in 10s from any given number. For example, 14, 24, 34, 44 and so on. Give your child lots of opportunities to practise these counting skills; both reciting them by heart and using them to count groups of objects. A 100 square is useful for counting in 10s - just count down the columns.

Triangles-  
supported  
Miss Avery

Continue these sequences:

|    |    |    |  |  |  |  |  |
|----|----|----|--|--|--|--|--|
| 12 | 14 | 16 |  |  |  |  |  |
|----|----|----|--|--|--|--|--|

|    |    |    |  |  |  |  |  |
|----|----|----|--|--|--|--|--|
| 65 | 70 | 75 |  |  |  |  |  |
|----|----|----|--|--|--|--|--|

|    |    |    |  |  |  |  |  |
|----|----|----|--|--|--|--|--|
| 21 | 24 | 27 |  |  |  |  |  |
|----|----|----|--|--|--|--|--|

|    |    |    |  |  |  |  |  |
|----|----|----|--|--|--|--|--|
| 86 | 76 | 66 |  |  |  |  |  |
|----|----|----|--|--|--|--|--|

|   |    |    |  |  |  |  |  |
|---|----|----|--|--|--|--|--|
| 8 | 12 | 16 |  |  |  |  |  |
|---|----|----|--|--|--|--|--|

Fill in the missing numbers:

|   |  |    |  |    |  |  |  |
|---|--|----|--|----|--|--|--|
| 8 |  | 12 |  | 16 |  |  |  |
|---|--|----|--|----|--|--|--|

|    |  |    |  |  |  |     |  |
|----|--|----|--|--|--|-----|--|
| 85 |  | 95 |  |  |  | 115 |  |
|----|--|----|--|--|--|-----|--|

|  |  |  |  |    |  |    |  |
|--|--|--|--|----|--|----|--|
|  |  |  |  | 54 |  | 34 |  |
|--|--|--|--|----|--|----|--|

|    |  |  |    |  |  |   |  |
|----|--|--|----|--|--|---|--|
| 24 |  |  | 15 |  |  | 6 |  |
|----|--|--|----|--|--|---|--|

Which 2 numbers are the odd ones out? 1.  2.  3.

1. 

|    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|
| 35 | 45 | 50 | 55 | 65 | 70 | 75 | 85 |
|----|----|----|----|----|----|----|----|

2. 

|    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|
| 98 | 88 | 77 | 68 | 58 | 57 | 38 | 28 |
|----|----|----|----|----|----|----|----|

3. 

|    |    |    |    |    |     |     |     |
|----|----|----|----|----|-----|-----|-----|
| 20 | 40 | 60 | 70 | 80 | 100 | 120 | 130 |
|----|----|----|----|----|-----|-----|-----|

# Number Sequences

Parents: Learning key number sequences by heart is an important skill as it supports calculation and understanding of number values. Children need to be able to count in 2s, 3s and 5s from zero; up to and beyond 100. They also need to be able to count forward and backwards in 10s from any given number. For example, 14, 24, 34, 44 and so on. Give your child lots of opportunities to practise these counting skills; both reciting them by heart and using them to count groups of objects. A 100 square is useful for counting in 10s - just count down the columns.

Continue these sequences:

|    |    |    |  |  |  |  |  |
|----|----|----|--|--|--|--|--|
| 12 | 14 | 16 |  |  |  |  |  |
|----|----|----|--|--|--|--|--|

|    |    |    |  |  |  |  |  |
|----|----|----|--|--|--|--|--|
| 65 | 70 | 75 |  |  |  |  |  |
|----|----|----|--|--|--|--|--|

|    |    |    |  |  |  |  |  |
|----|----|----|--|--|--|--|--|
| 21 | 24 | 27 |  |  |  |  |  |
|----|----|----|--|--|--|--|--|

|    |    |    |  |  |  |  |  |
|----|----|----|--|--|--|--|--|
| 86 | 76 | 66 |  |  |  |  |  |
|----|----|----|--|--|--|--|--|

|   |    |    |  |  |  |  |  |
|---|----|----|--|--|--|--|--|
| 8 | 12 | 16 |  |  |  |  |  |
|---|----|----|--|--|--|--|--|

Fill in the missing numbers:

|   |  |    |  |    |  |  |  |
|---|--|----|--|----|--|--|--|
| 8 |  | 12 |  | 16 |  |  |  |
|---|--|----|--|----|--|--|--|

|    |  |    |  |  |  |     |  |
|----|--|----|--|--|--|-----|--|
| 85 |  | 95 |  |  |  | 115 |  |
|----|--|----|--|--|--|-----|--|

|  |  |  |  |    |  |    |  |
|--|--|--|--|----|--|----|--|
|  |  |  |  | 54 |  | 34 |  |
|--|--|--|--|----|--|----|--|

|    |  |  |    |  |  |   |  |
|----|--|--|----|--|--|---|--|
| 24 |  |  | 15 |  |  | 6 |  |
|----|--|--|----|--|--|---|--|

Which 2 numbers are the odd ones out? 1.  2.  3.

|    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|
| 1. | 35 | 45 | 50 | 55 | 65 | 70 | 75 | 85 |
|----|----|----|----|----|----|----|----|----|

|    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|
| 2. | 98 | 88 | 77 | 68 | 58 | 57 | 38 | 28 |
|----|----|----|----|----|----|----|----|----|

|    |    |    |    |    |    |     |     |     |
|----|----|----|----|----|----|-----|-----|-----|
| 3. | 20 | 40 | 60 | 70 | 80 | 100 | 120 | 130 |
|----|----|----|----|----|----|-----|-----|-----|

# Number Sequences

Triangles-  
supported  
Miss Avery

Parents: Learning key number sequences by heart is an important skill as it supports calculation and understanding of number values. Children need to be able to count in 2s, 3s and 5s from zero; up to and beyond 100. They also need to be able to count forward and backwards in 10s from any given number. For example, 14, 24, 34, 44 and so on. Give your child lots of opportunities to practise these counting skills; both reciting them by heart and using them to count groups of objects. A 100 square is useful for counting in 10s - just count down the columns.

Continue these sequences:

|    |    |    |  |  |  |  |  |
|----|----|----|--|--|--|--|--|
| 12 | 14 | 16 |  |  |  |  |  |
|----|----|----|--|--|--|--|--|

|    |    |    |  |  |  |  |  |
|----|----|----|--|--|--|--|--|
| 65 | 70 | 75 |  |  |  |  |  |
|----|----|----|--|--|--|--|--|

|    |    |    |  |  |  |  |  |
|----|----|----|--|--|--|--|--|
| 21 | 24 | 27 |  |  |  |  |  |
|----|----|----|--|--|--|--|--|

|    |    |    |  |  |  |  |  |
|----|----|----|--|--|--|--|--|
| 86 | 76 | 66 |  |  |  |  |  |
|----|----|----|--|--|--|--|--|

|   |    |    |  |  |  |  |  |
|---|----|----|--|--|--|--|--|
| 8 | 12 | 16 |  |  |  |  |  |
|---|----|----|--|--|--|--|--|

Fill in the missing numbers:

|   |  |    |  |    |  |  |  |
|---|--|----|--|----|--|--|--|
| 8 |  | 12 |  | 16 |  |  |  |
|---|--|----|--|----|--|--|--|

|    |  |    |  |  |  |     |  |
|----|--|----|--|--|--|-----|--|
| 85 |  | 95 |  |  |  | 115 |  |
|----|--|----|--|--|--|-----|--|

|  |  |  |  |    |  |    |  |
|--|--|--|--|----|--|----|--|
|  |  |  |  | 54 |  | 34 |  |
|--|--|--|--|----|--|----|--|

|    |  |  |    |  |  |   |  |
|----|--|--|----|--|--|---|--|
| 24 |  |  | 15 |  |  | 6 |  |
|----|--|--|----|--|--|---|--|

Which 2 numbers are the odd ones out? 1.  2.  3.

|    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|
| 1. | 35 | 45 | 50 | 55 | 65 | 70 | 75 | 85 |
|----|----|----|----|----|----|----|----|----|

|    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|
| 2. | 98 | 88 | 77 | 68 | 58 | 57 | 38 | 28 |
|----|----|----|----|----|----|----|----|----|

|    |    |    |    |    |    |     |     |     |
|----|----|----|----|----|----|-----|-----|-----|
| 3. | 20 | 40 | 60 | 70 | 80 | 100 | 120 | 130 |
|----|----|----|----|----|----|-----|-----|-----|

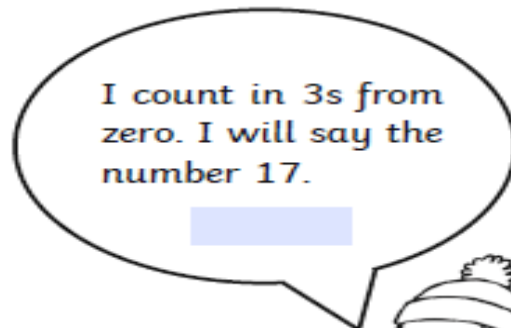


# Challenge

Are these statements true or false? Explain your answer to your helper.



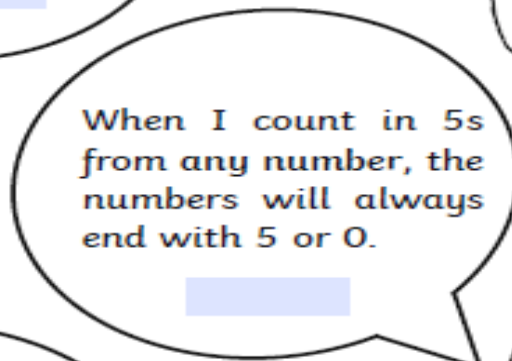
If I count on in 10s from 4, each number will end with 4.



I count in 3s from zero. I will say the number 17.



If I count in 2s from zero, the numbers will always be even.



When I count in 5s from any number, the numbers will always end with 5 or 0.

# Tues- Squares – Mrs Cooper

## Find a rule – two step

- 1 Use the function machine to complete the table.



| Input  | 1 | 2 | 3 | 5 | 10 | 50 |
|--------|---|---|---|---|----|----|
| Output |   |   |   |   |    |    |

- 2 Here is the same function machine with the steps in the reverse order.



Teddy

The outputs will be the same.



Jack

The outputs will be different.

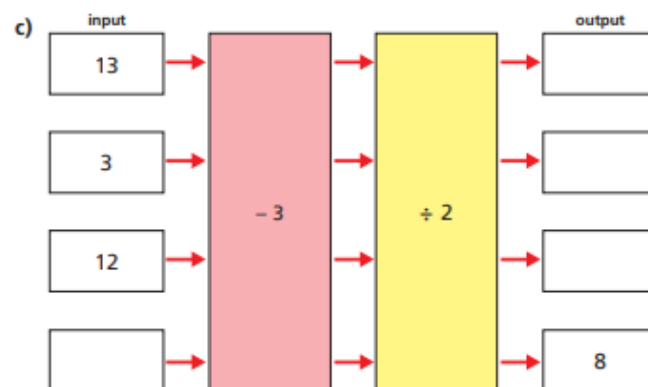
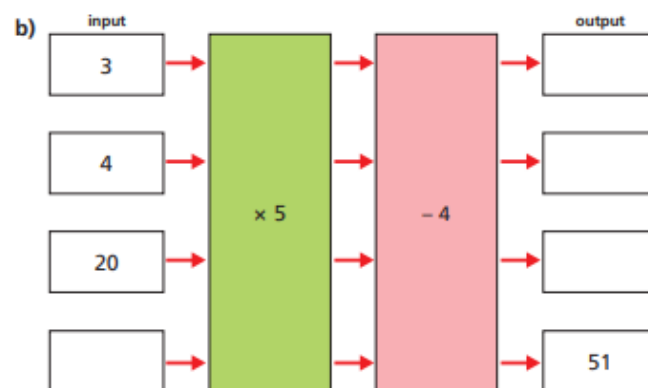
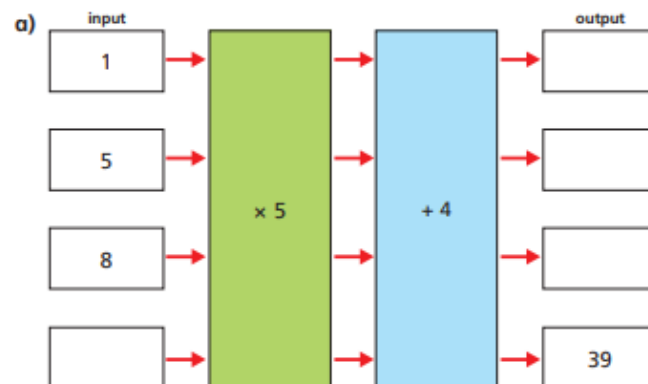
Explain to a partner who you think is correct.

Use the function machine to complete the table.

| Input  | 1 | 2 | 3 | 5 | 10 | 50 |
|--------|---|---|---|---|----|----|
| Output |   |   |   |   |    |    |

Who is correct? \_\_\_\_\_

- 3 Work out the missing outputs and inputs.



# Find a rule – two step

- 1 Use the function machine to complete the table.



| Input  | 1 | 2  | 3  | 5  | 10 | 50  |
|--------|---|----|----|----|----|-----|
| Output | 7 | 12 | 17 | 27 | 52 | 252 |

- 2 Here is the same function machine with the steps in the reverse order.



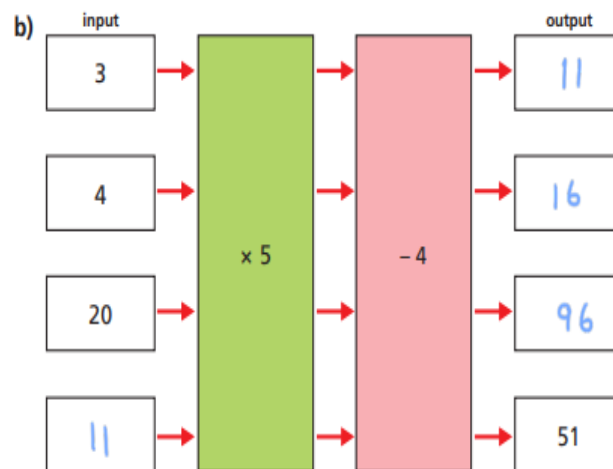
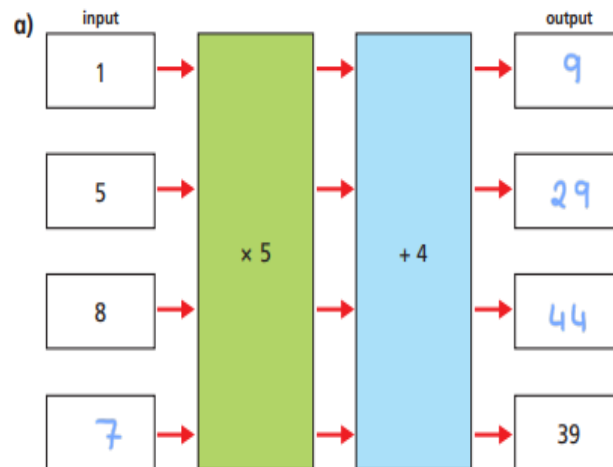
Teddy

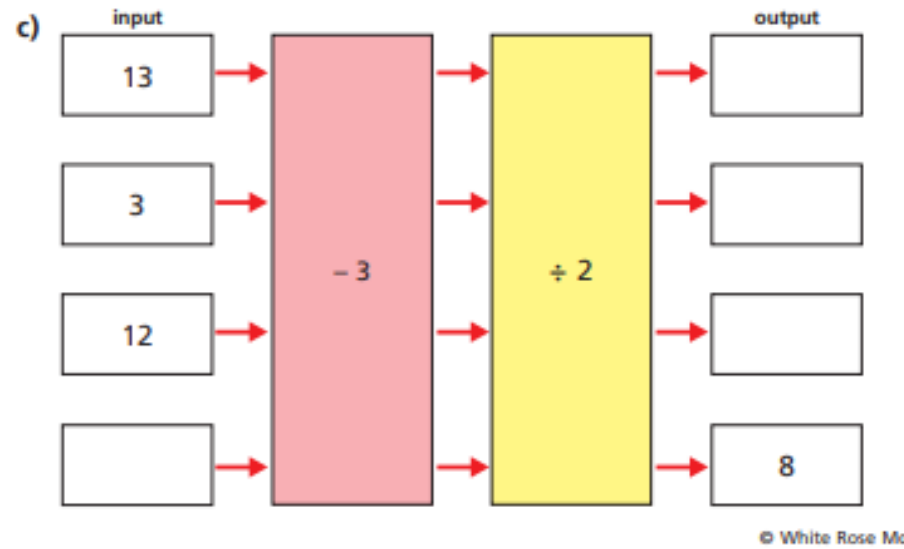
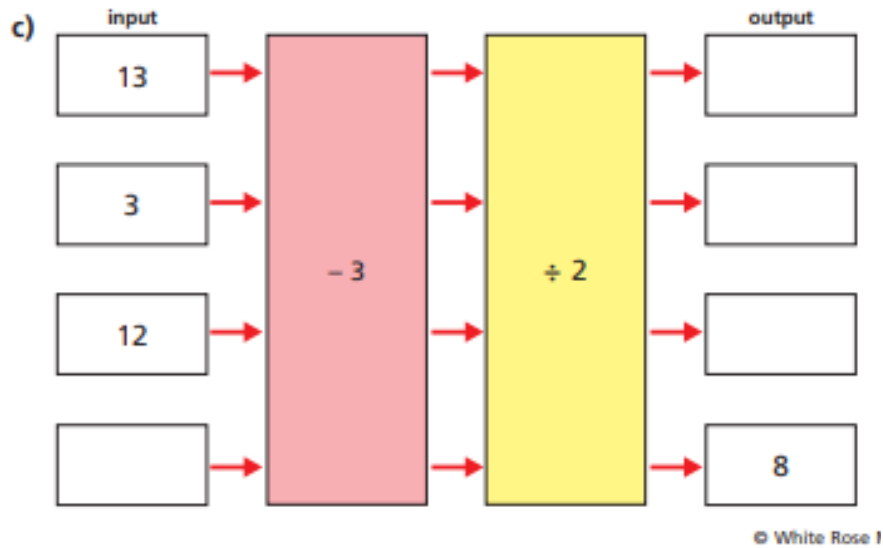
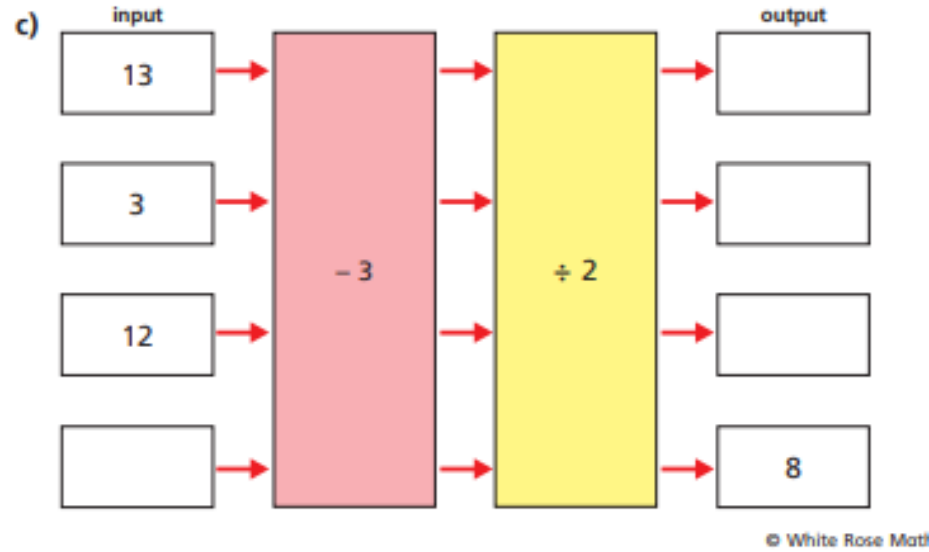
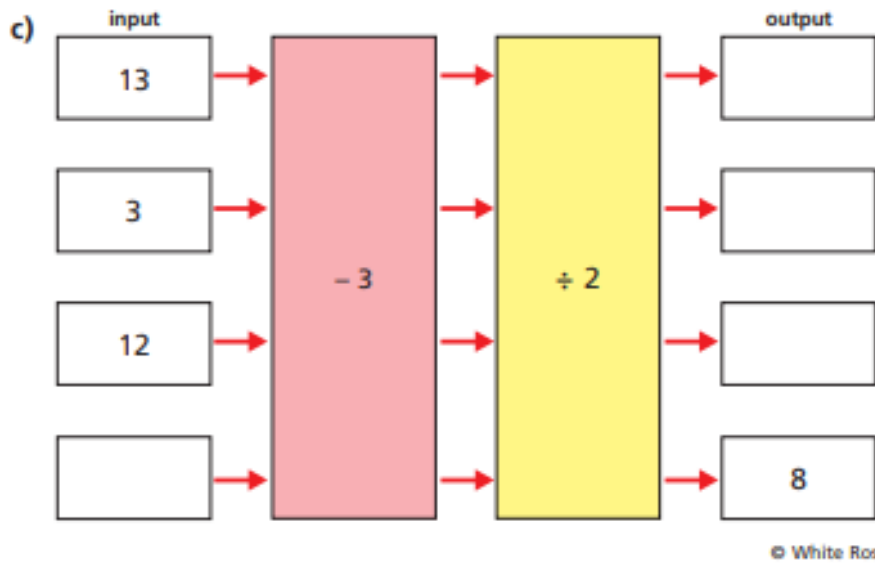
The outputs will be the same.



The outputs will be different.

- 3 Work out the missing outputs and inputs.

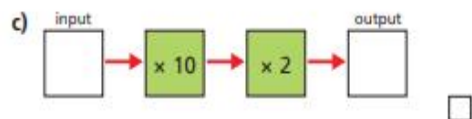
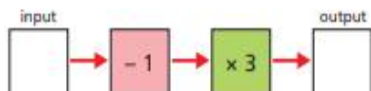
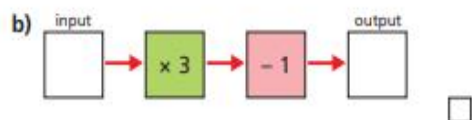
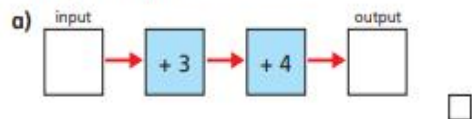




Tues- Hexagons- Mrs Lund

# Hexagon Tues

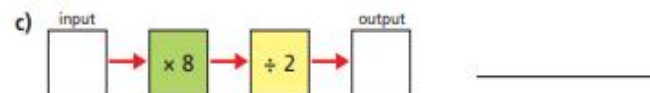
- 4 Tick the pairs of function machines that will give the same outputs for a given input.



Explain your reasoning to a partner.

- 5 Here are some 2-step function machines.  
For each machine, write a single step that would give the same output.

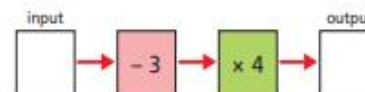
Check your answers by inputting values.



Can all 2-step function machines be written as a 1-step function machine?

Talk about it with a partner.

- 6 Here is a function machine.



- a) Complete the table.

|        |    |   |    |     |
|--------|----|---|----|-----|
| Input  | 10 | 3 |    |     |
| Output |    |   | 40 | 280 |

- b) Rosie puts a number into the machine and she gets out the same number.

Work out Rosie's number.

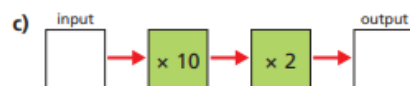
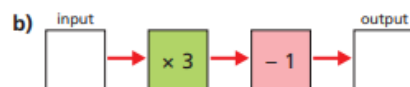
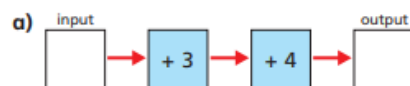
- 7 Mr Hall and Mrs Rose order some photos online.

- a) Mr Hall orders 16 photos.  
How much does he pay?



- b) Mrs Rose pays £6.05  
How many photos did she order?

- 4 Tick the pairs of function machines that will give the same outputs for a given input.

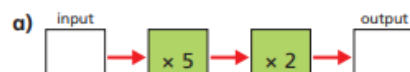


Explain your reasoning to a partner.

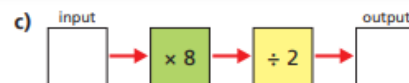
- 5 Here are some 2-step function machines.

For each machine, write a single step that would give the same output.

Check your answers by inputting values.



$\times 10$



$\times 4$

Can all 2-step function machines be written as a 1-step function machine?

Talk about it with a partner.

- 6 Here is a function machine.



- a) Complete the table.

|        |    |   |    |     |
|--------|----|---|----|-----|
| Input  | 10 | 3 | 13 | 73  |
| Output | 28 | 0 | 40 | 280 |

- b) Rosie puts a number into the machine and she gets out the same number.

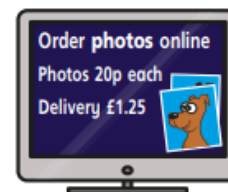
Work out Rosie's number.

4

- 7 Mr Hall and Mrs Rose order some photos online.

- a) Mr Hall orders 16 photos.

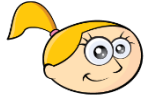
How much does he pay?



£4.45

- b) Mrs Rose pays £6.05

How many photos did she order?



Eva is ordering some crayons online. She needs to buy 22 crayons altogether.

How much will it cost for 22 crayons including delivery?

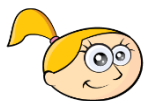


30p each

£1.60 to deliver

Create a function machine to help you.

# Challenge



Eva is ordering some crayons online. She needs to buy 22 crayons altogether.

How much will it cost for 22 crayons including delivery?

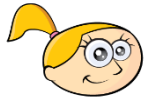


30p each

£1.60 to deliver

Create a function machine to help you.

# Challenge



Eva is ordering some crayons online. She needs to buy 22 crayons altogether.

How much will it cost for 22 crayons including delivery?

£8.20

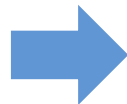


30p each

£1.60 to deliver

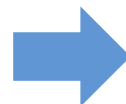
Input

22



$\times 0.30$

£6.60



$+ \text{£}1.60$

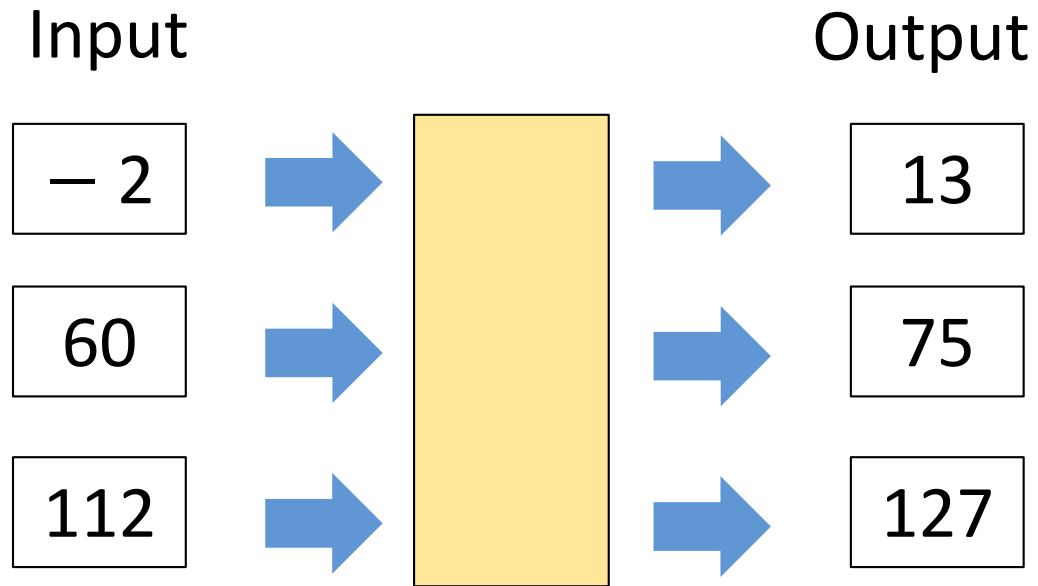


Output

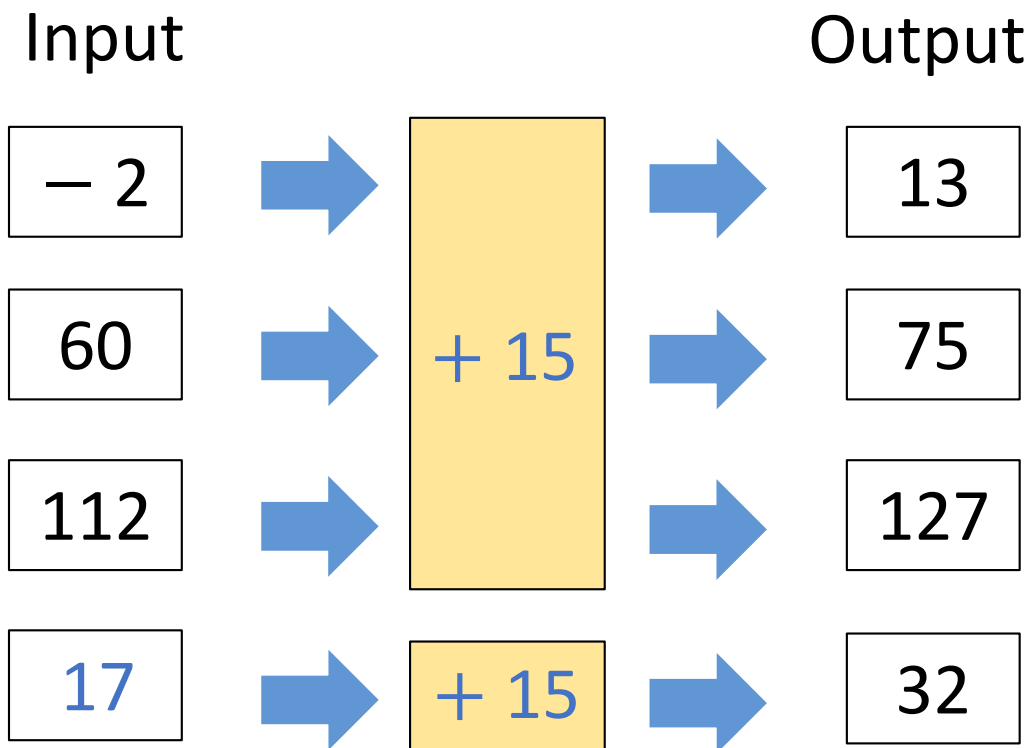
£8.20

$$22 \times 3 = 66$$

$$22 \times 0.3 = 6.6$$



What is the input if the output is 32?



What is the input if the output is 32?

$$32 - 15$$

# Daily Maths Meeting



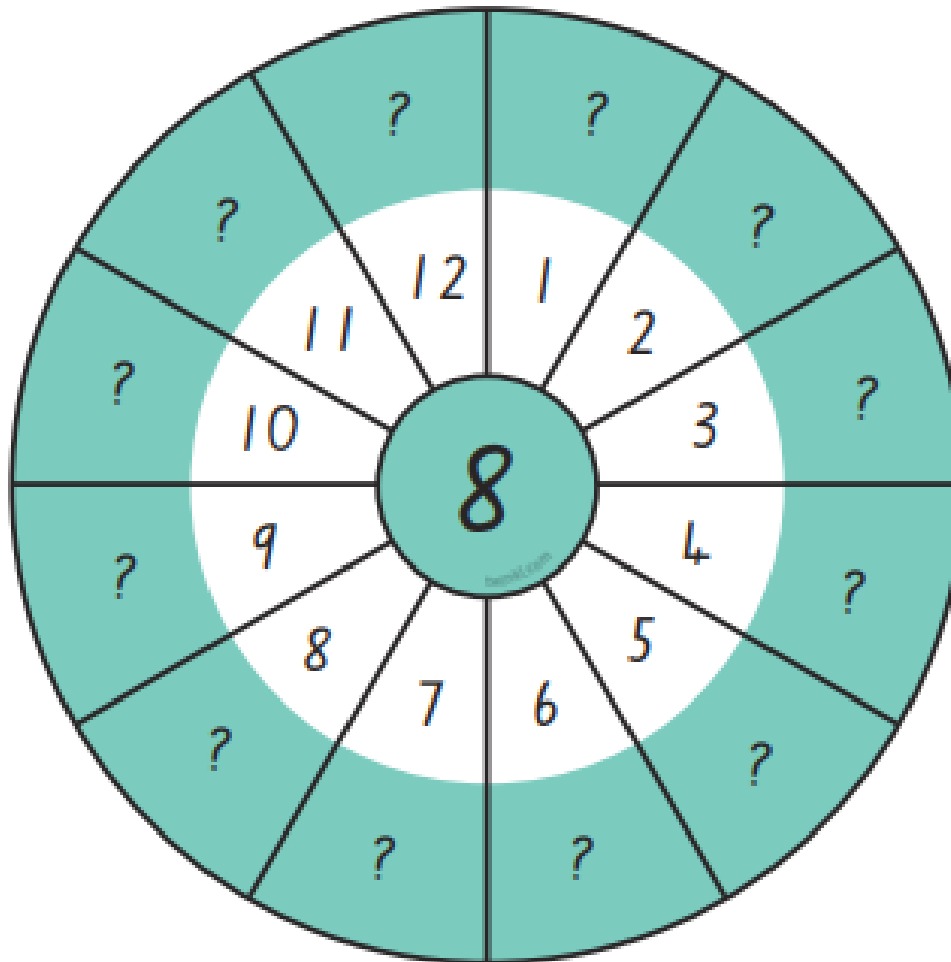
Tuesday

# Tuesday- 8 x table practise

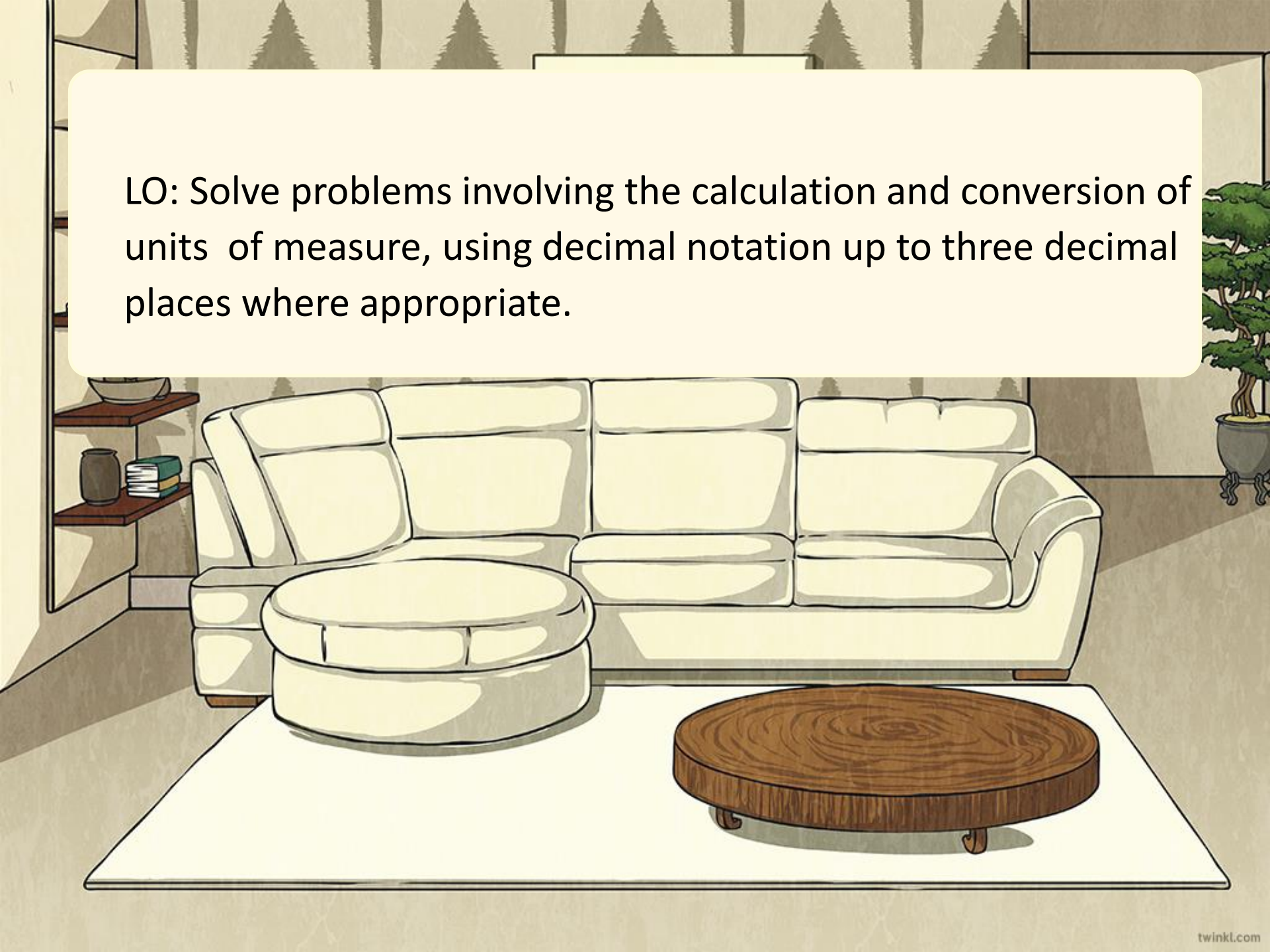


[https://www.youtube.com/watch?v=z\\_BJjR9rdwA](https://www.youtube.com/watch?v=z_BJjR9rdwA)

How quickly can you get round the clock saying the correct answer?!



LO: Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.





Six 360ml cups are filled from a 2.3l flask of coffee. How much coffee is now left in the flask?  
Give your answer in litres.

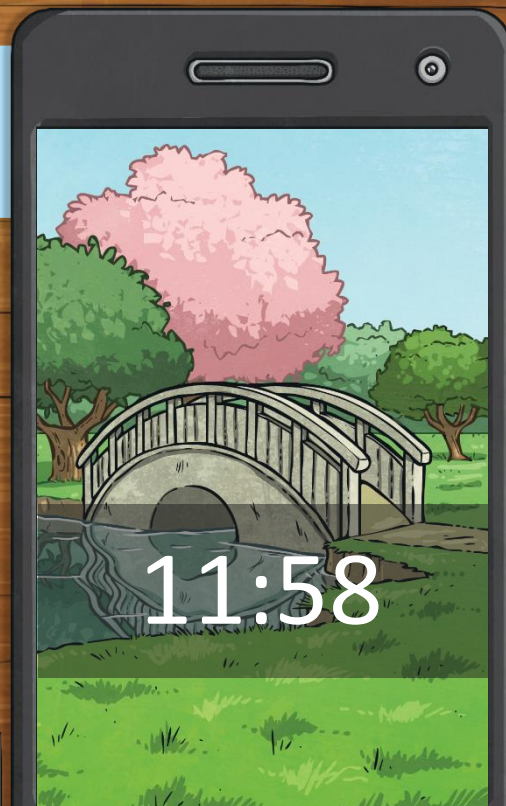
| Flask = 2.3l   |                |                |                |                |                |       |
|----------------|----------------|----------------|----------------|----------------|----------------|-------|
| Cup =<br>360ml | Cup =<br>360ml | Cup =<br>360ml | Cup =<br>360ml | Cup =<br>360ml | Cup =<br>360ml | 0.14l |

How much is left?



Finlay has a piece of string which measures 0.9m. He cuts off a piece measuring 15cm and then cuts the remaining string into three equal pieces. How long is each piece?

Three children record their answer to this problem:





What is the total mass in kilograms of the contents of the rucksacks?

2.78kg

Mass of rucksack contents:

0.35kg = **Rucksack C**

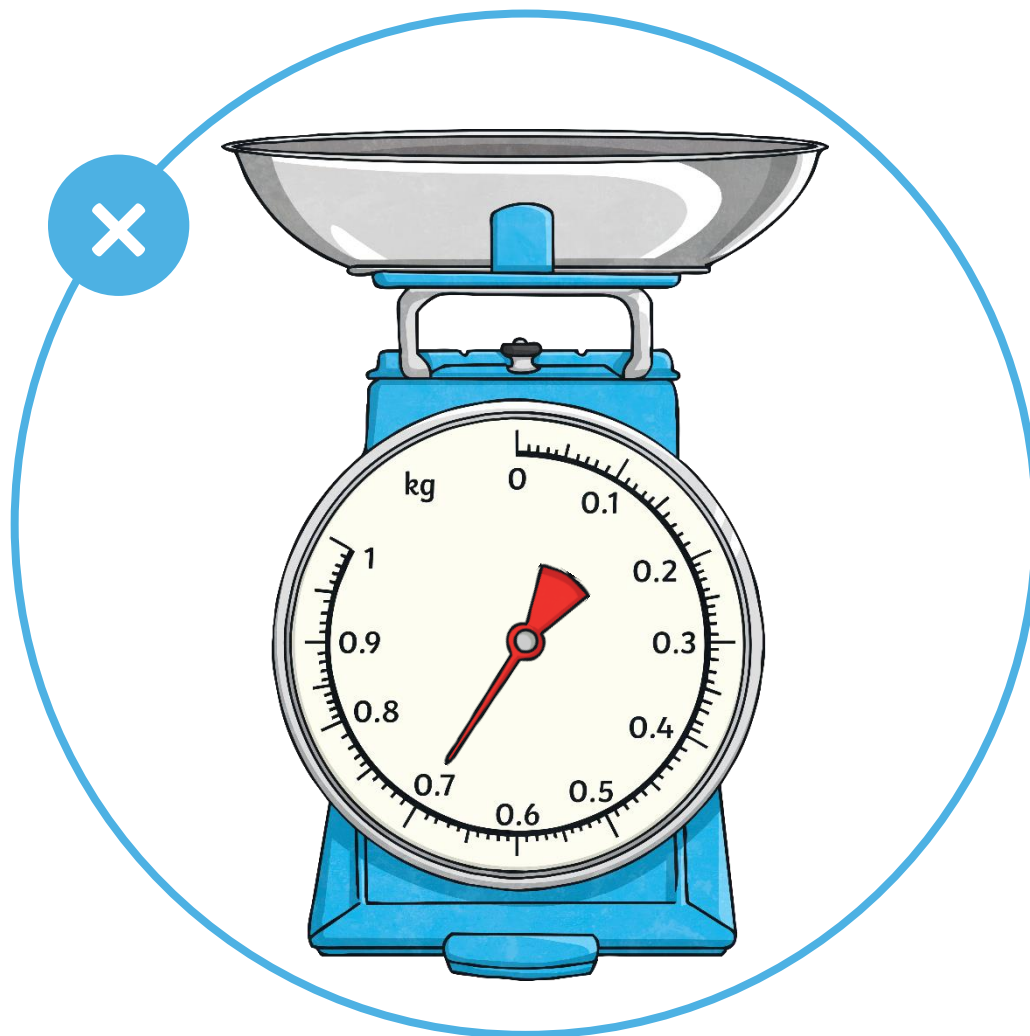
0.8kg = **Rucksack A**

80g = **Rucksack B**

0.7kg = **Rucksack E**

850g = **Rucksack D**

scale



Weds 9.2.22

LO: To learn how to form 'expressions'

Do you agree ? Prove it!  
Do now- whiteboards

Input

5



Output

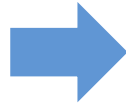
15

I think the rule is add 10



Input

5



Output

15

I think the rule is add 10

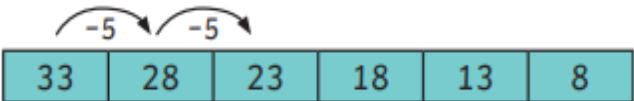
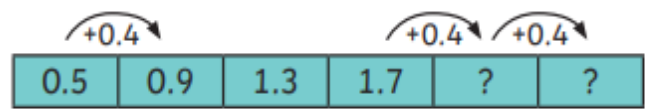
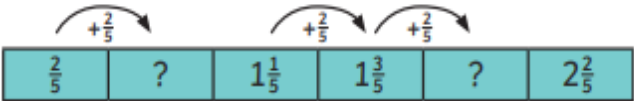
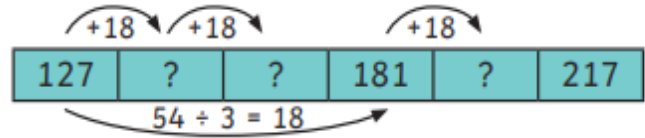


$$5 + 10 = 15$$

$$5 \times 3 = 15$$

Have a think



| Key Vocabulary    | Linear Number Sequences                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| term to term rule | A linear number sequence is a sequence where each value increases or decreases by the same amount each time. Each number in a linear number sequence is called a <b>term</b> . The constant change between each number is called the term to term rule. To identify the <b>term to term rule</b> , find the difference between two adjacent terms.                                                                                        |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| variable          | When you know the term to term rule, you can use it to find the next number in the sequence. It can also be used to find a missing number within a sequence.                                                                                                                                                                                                                                                                              |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| unknown           |                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                           |
| expression        |                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                           |
| equation          | Forming Expressions                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                     | Forming Equations                                                                                                                                                                                                                                                                                                                                                         |
| formula           | <div>An expression is a group of numbers, letters and operation symbols.</div> <div> <div>Add 14 to <math>a</math></div> <div>Subtract 20 from <math>b</math></div> <div>Multiply <math>c</math> by 4</div> <div>12 more than <math>d</math></div> <div>Multiply <math>e</math> by 3 and subtract 5</div> <div>Add 12 to <math>f</math> and then multiply by 2</div> </div>                                                               |                                                                                     | <div>An equation is a number statement with an equal sign (=). Expressions on either side of the equal sign are of equal value.</div> <div> <div><math>a + 14 = 20</math></div> <div><math>b - 20 = 15</math></div> <div><math>4c = 28</math></div> <div><math>d + 12 = 30</math></div> <div><math>3e - 5 = 10</math></div> <div><math>2(f + 12) = 44</math></div> </div> |
| one-step equation |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| two-step equation |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| substitution      |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| pairs of unknowns | Formulas / Formulae                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| enumerate         | <div>(The word formula has two possible plural forms, formulae and formulas.)</div> <div>A formula is a special type of equation that shows the relationship between different substituted variables. Formulas are often used in geometry to find area and volume.</div> <div> <div>Area of rectangle = length × width</div> <div>Area of triangle = (base × height) ÷ 2</div> <div>(12.5 × hours worked) + 25 = cost of job</div> </div> |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |
|                   |  visit <a href="https://www.twinkl.com">twinkl.com</a>                                                                                                                                                                                                                                                                                                  |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                           |

# Algebra

## Key Vocabulary

term to term rule

variable

unknown

expression

equation

formula

one-step equation

two-step equation

substitution

pairs of unknowns

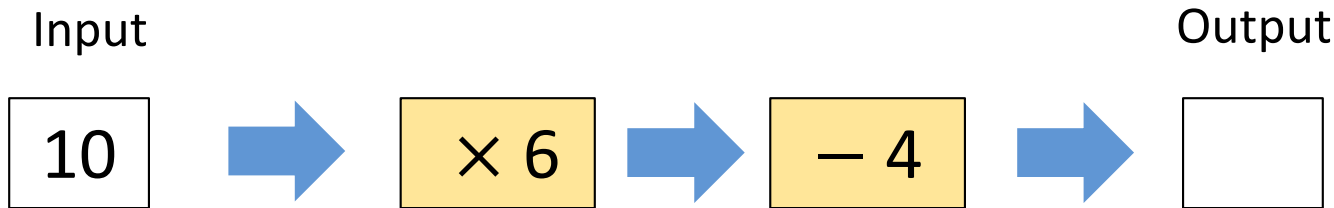
enumerate



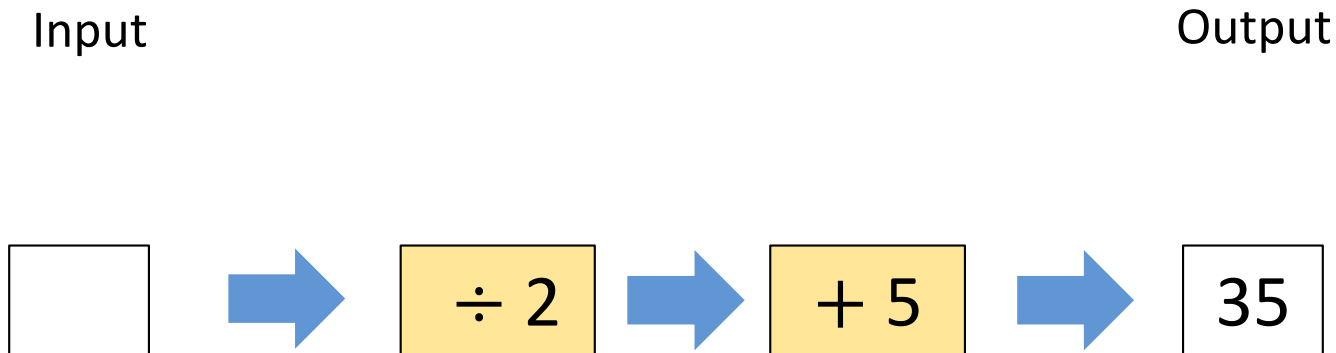
visit [twinkl.com](https://www.twinkl.com)

# Recap...

1) Calculate the missing outputs for the function machine.

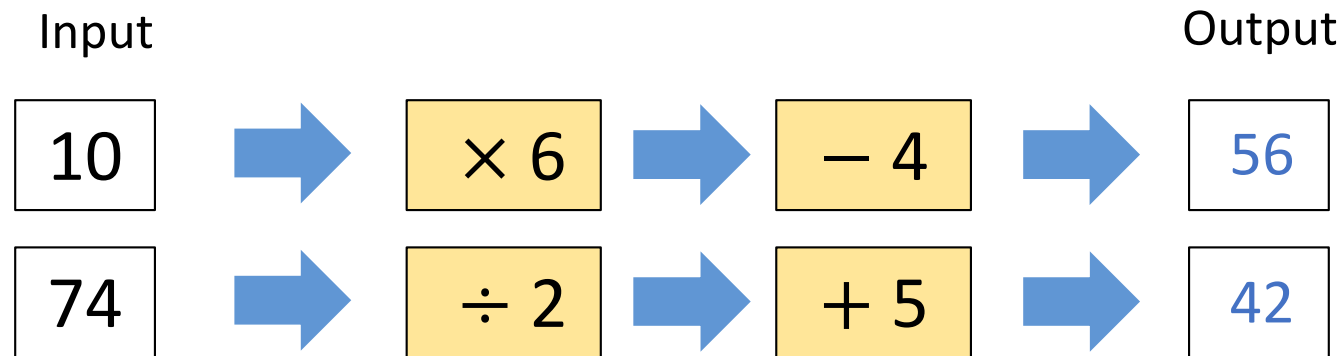


2) Calculate the missing inputs for the function machine.

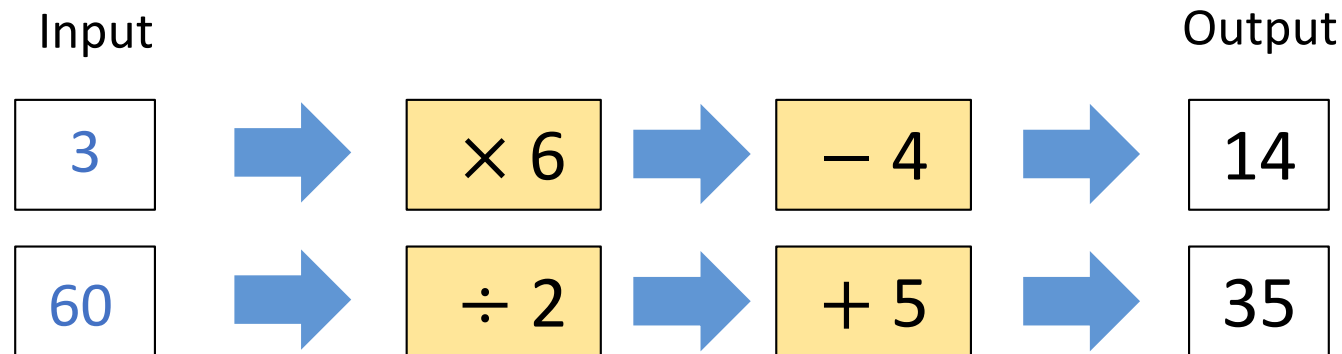


# INVERSE!

1) Calculate the missing outputs for the function machine.



2) Calculate the missing inputs for the function machine.



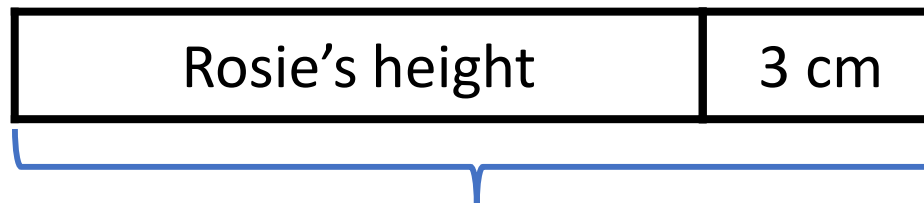
LET'S LEARN



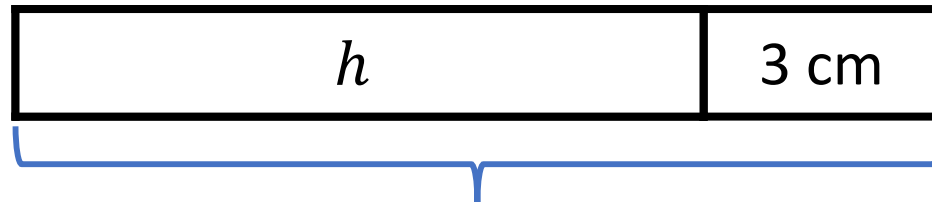


Rosie grows 3 cm

How could we represent what has just happened?



Rosie's new height



Rosie's new height

$$h + 3$$

Have a think



Billy has some frogs ( $f$ )  
He catches 2 more.

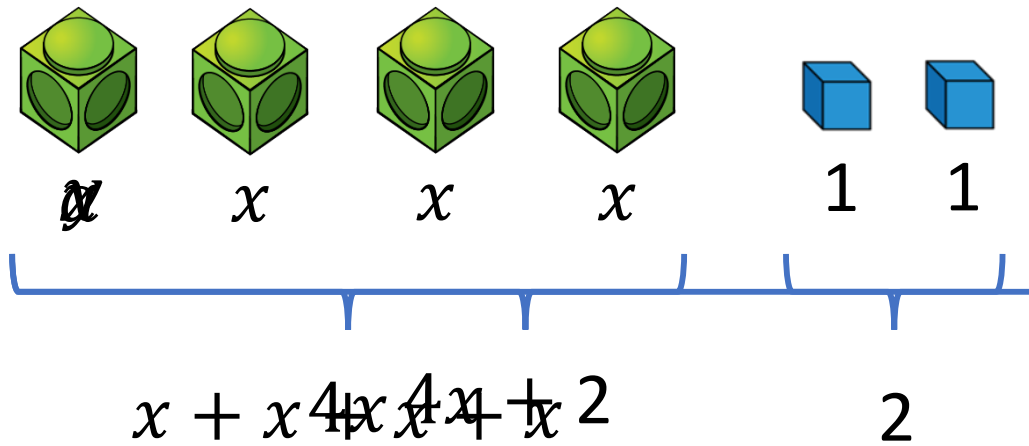
$$f + 2$$



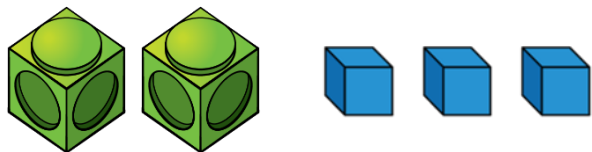
Sally has some sweets ( $s$ )  
She buys 5 more.

$$s + 5$$

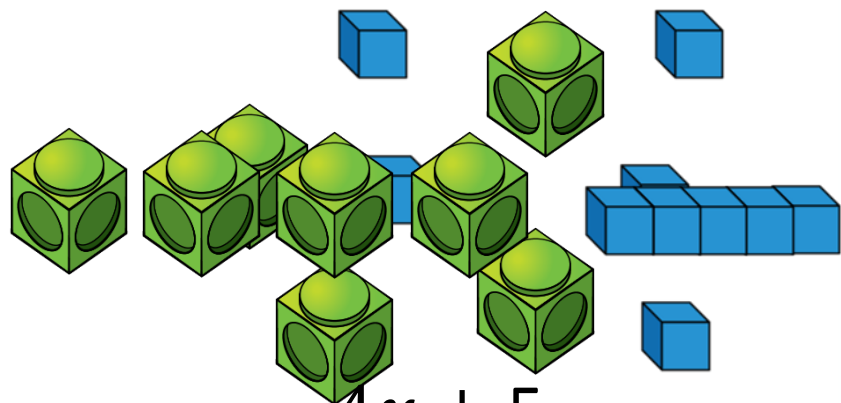




How could you write these as expressions?



$$2x + 3$$

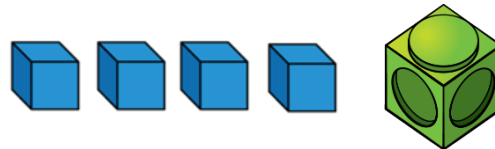


$$4x + 5$$

How could you represent these expressions? Use cubes and counters



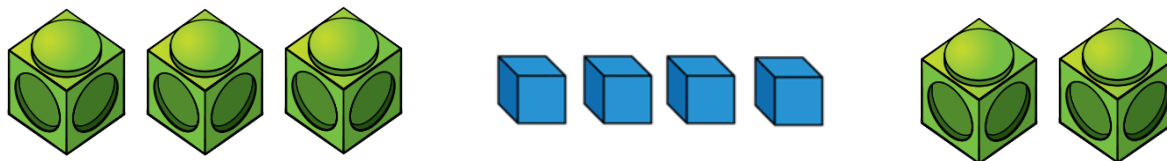
$$3x + 3$$



$$4 + x$$

**Simplify** the expression

$$3y + 4 + 2y$$



$$5y + 4$$

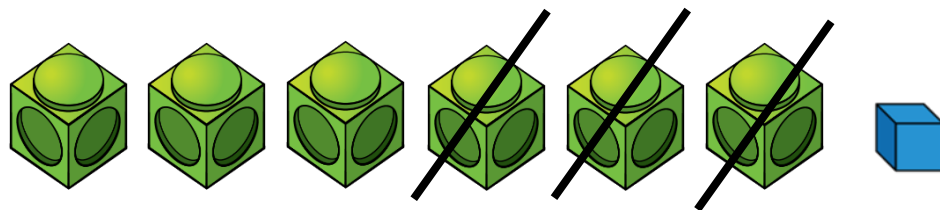
$$6p + 1 - 3p$$

$$2a + 7 + a - 1$$

Have a think

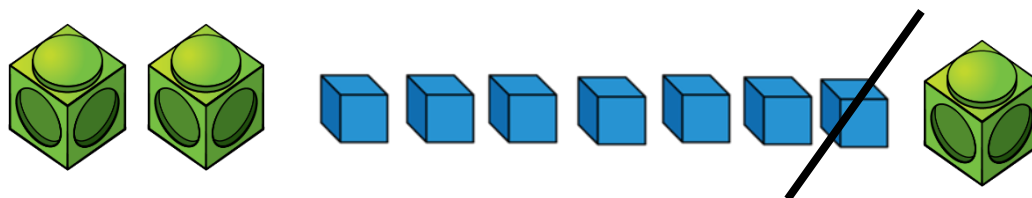


$$6p + 1 - 3p$$



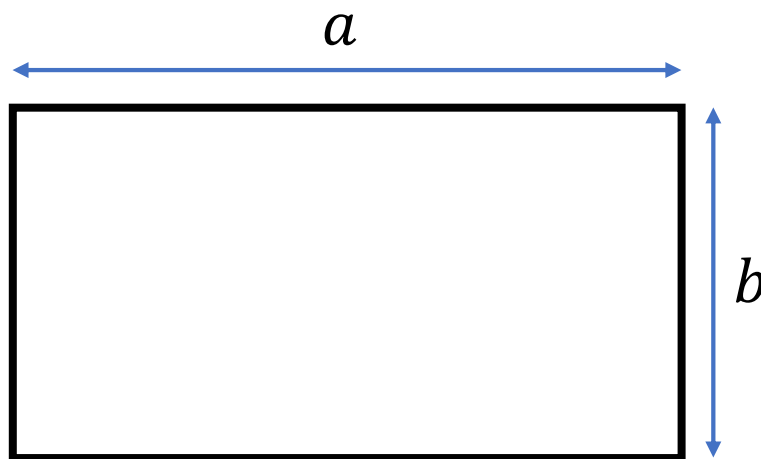
$$3p + 1$$

$$2a + 7 + a - 1$$



$$3a + 6$$

Write an algebraic expression to represent the perimeter of the rectangle.

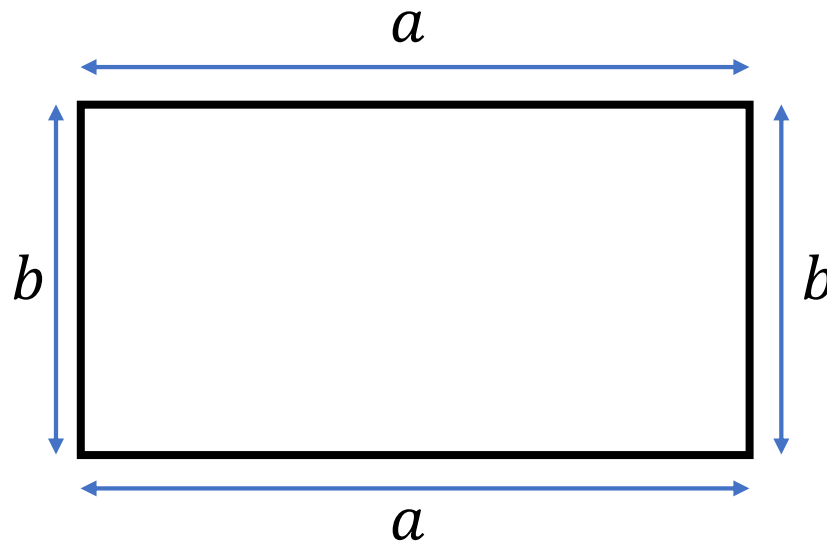


I think the expression is  $a + b + a + b$

Have a think



Write an algebraic expression to represent the perimeter of the rectangle.



I think the expression is  $a + b + a + b$

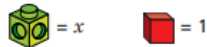
$$2a + 2b$$

# EW plan Octagons

# Squares and Triangles- Mrs Lund/Miss Avery

## Forming expressions

- 1 Tommy uses multilink cubes to represent an unknown number and base ten ones to represent 1



Write algebraic expressions to describe the sets of cubes.

The first one has been done for you.

a)   $2x + 3$

b)  \_\_\_\_\_

c)  \_\_\_\_\_

d)  \_\_\_\_\_

e)  \_\_\_\_\_

f)  \_\_\_\_\_

g)  \_\_\_\_\_

h)  \_\_\_\_\_

Rose  
Maths



- 2 Use Tommy's method to represent these expressions.

a)  $x + 2$       c)  $3x + 1$

b)  $2x$       d)  $x + 6$

Compare answers with a partner.

- 3 Use cubes to help you simplify the following expressions.

The first one has been done for you.

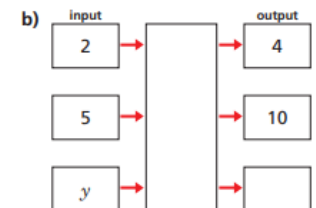
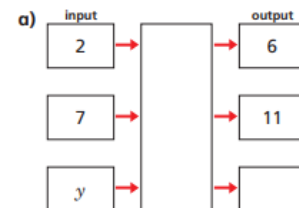
a)  $2y + 5 + y$    $3y + 5$

b)  $3a + 2 + a + a$   \_\_\_\_\_

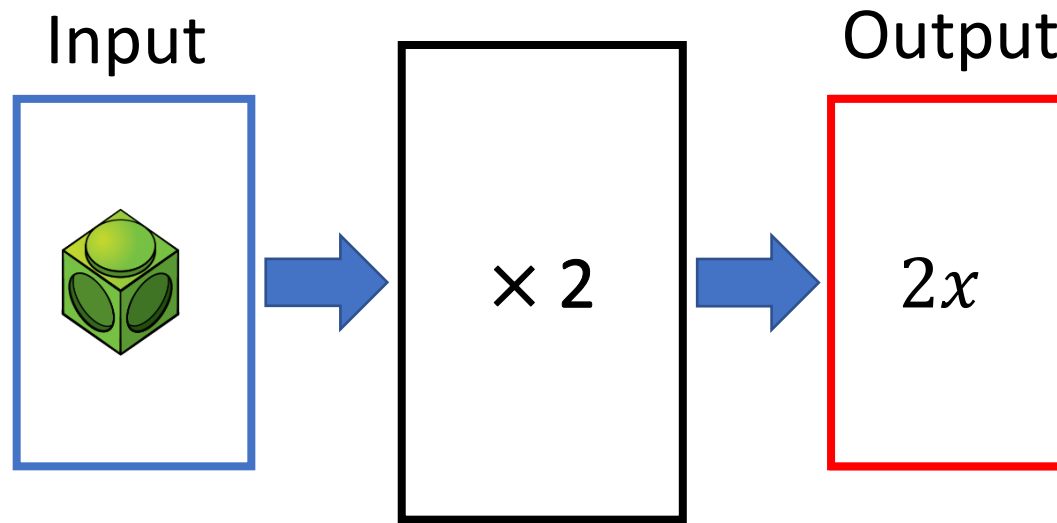
c)  $6p + 2 - 2p$   \_\_\_\_\_

d)  $m + 4 + 3m - 3$  \_\_\_\_\_

- 4 Complete the function machines.

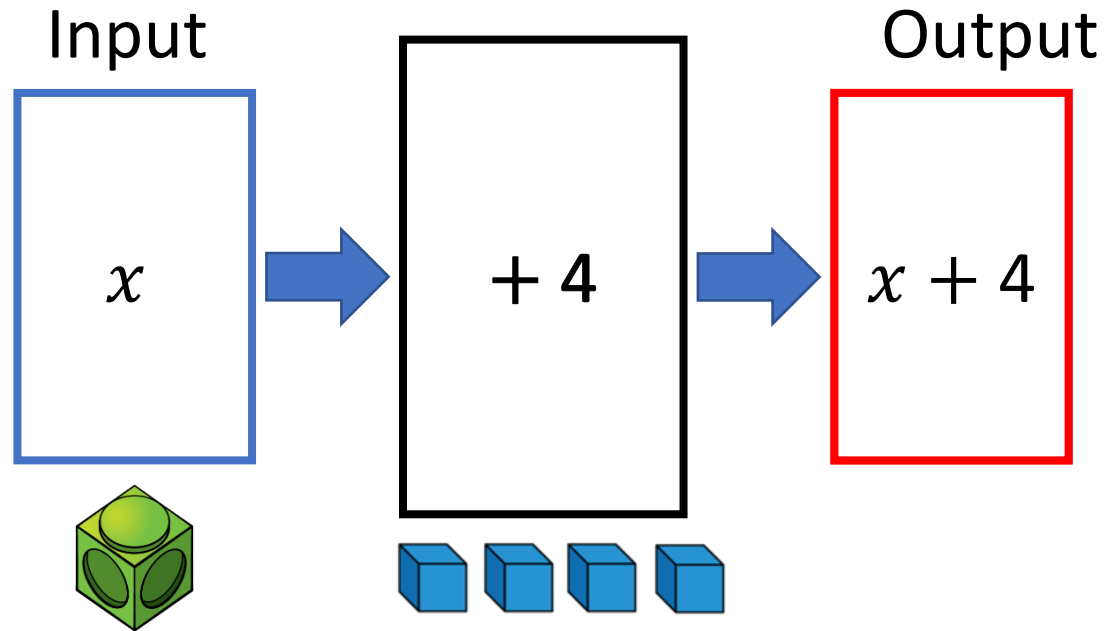


# Hexagons- Corbett maths questions



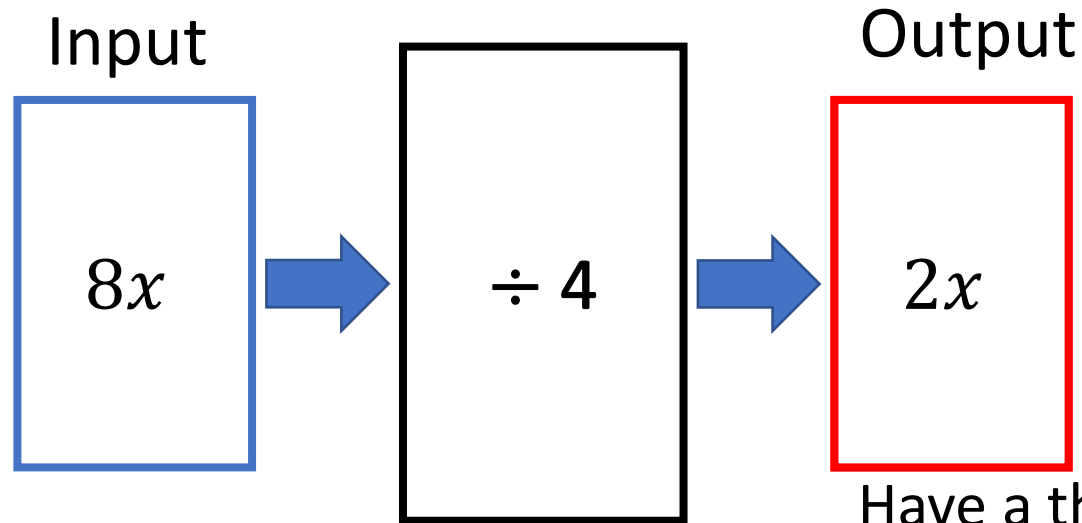
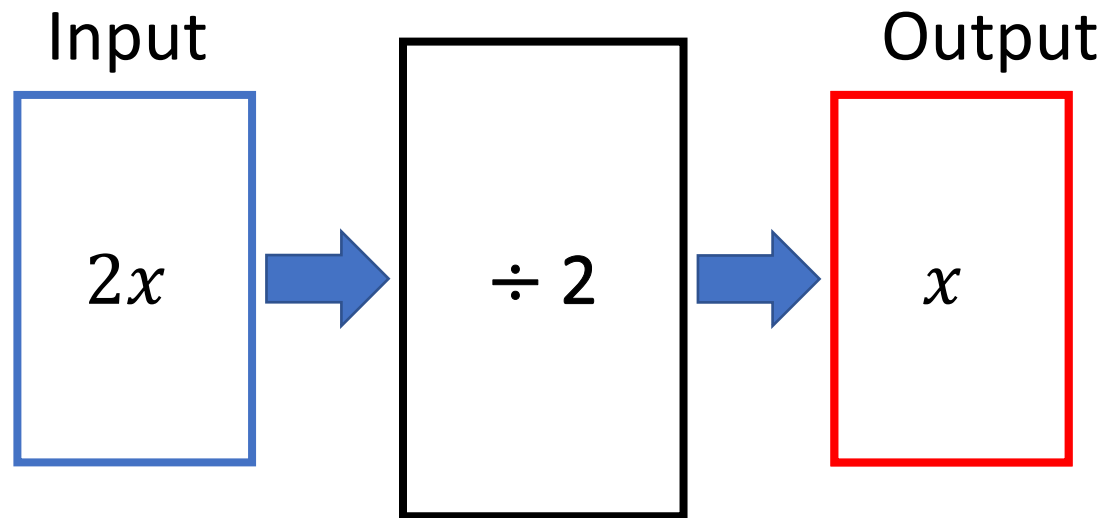
$x$  multiplied by 2 =  $2x$

Double  $x = 2x$



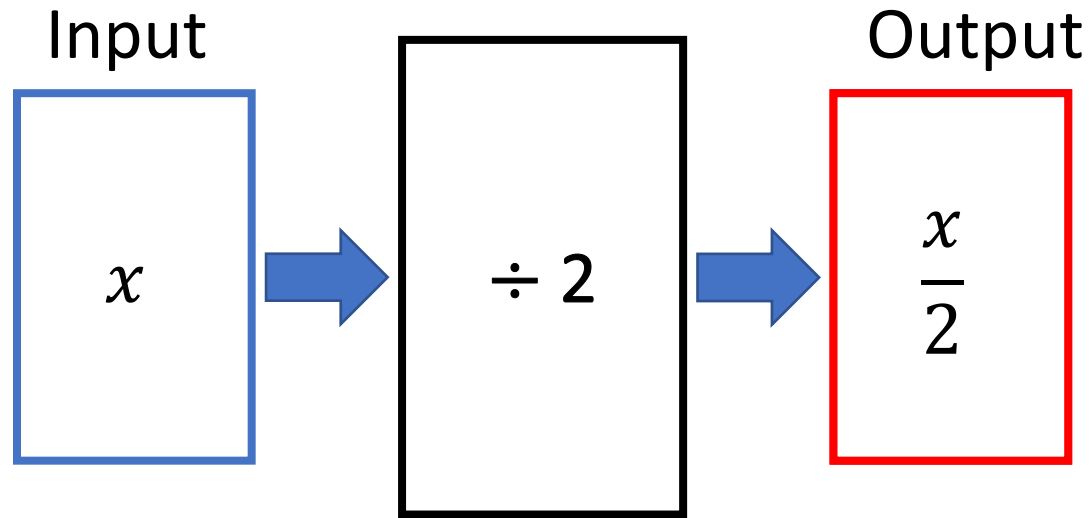
$$x \text{ add } 4 = x + 4$$

4 more than  $x$  is  $x + 4$



Have a think





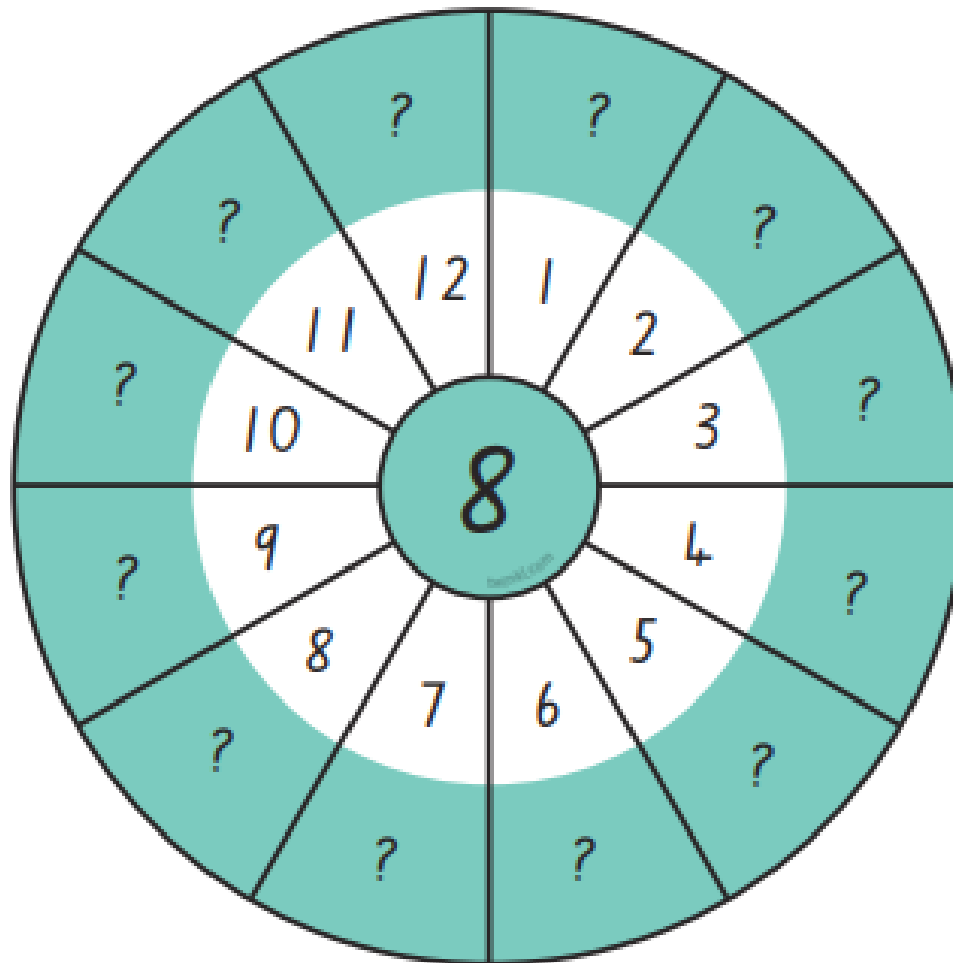
$$x \text{ divided by } 2 = \frac{x}{2}$$

# Daily Maths Meeting

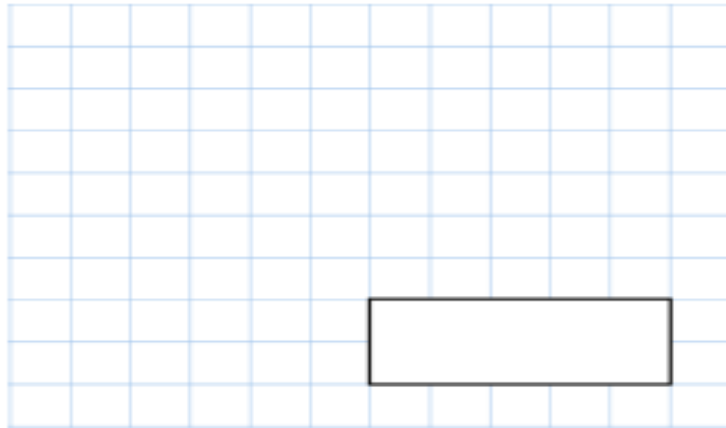


Wednesday

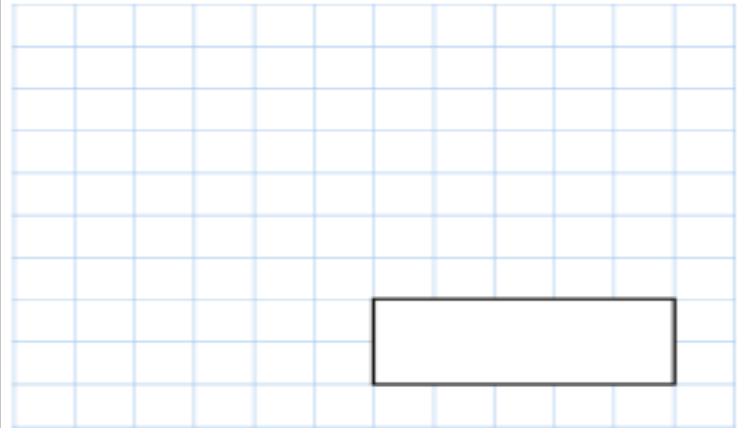
Revision! How quickly can you get round the clock saying the correct answer?!



$$53 \times 90$$



$$28.41 \div 10$$



Jack is 1.64 metres tall.

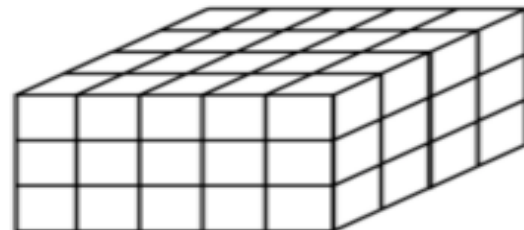
His friend Mike is 5 centimetres shorter than Jack.

What height is Mike?  
Give your answer in metres.

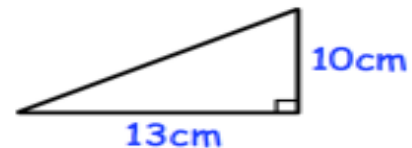


Each cube has a volume of  $1\text{cm}^3$

Work out the volume of the cuboid



Find the area of this triangle

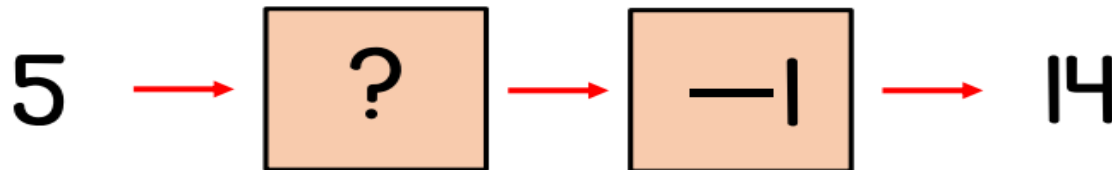


LO: To learn how to form 'expressions'

True or False ?

DO NOW!

Rosie is exploring two step function machines.

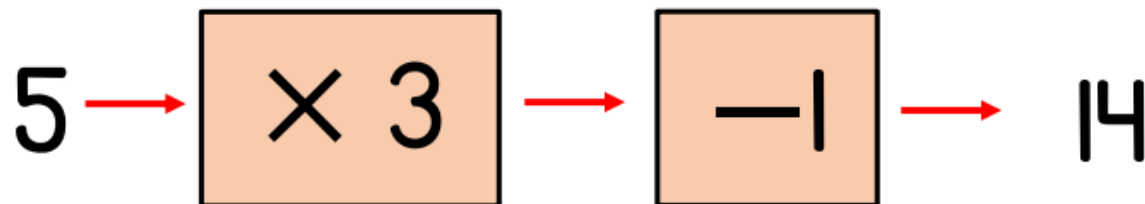
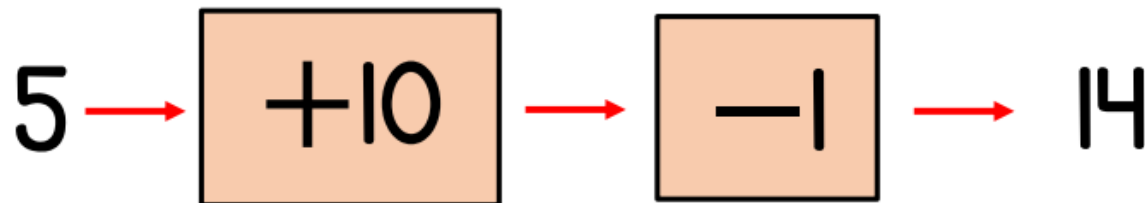


Rosie

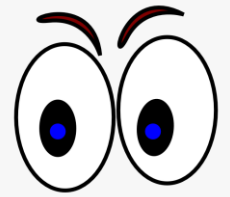
The missing function must  
be  $+10$

# False

The missing function could be  $+ 10$   
or it could be  $\times 3$



<https://corbettmathsprimary.com/2018/07/19/substitution-video/>



# SUBSTITUTION



1) Use multilink and base ten to represent these expressions.



$= x$



$= 1$

a)  $3x + 3$

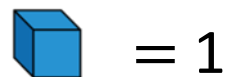
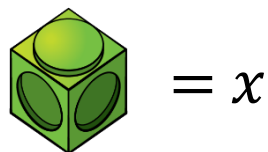
b)  $4x$

c)  $x + 5$

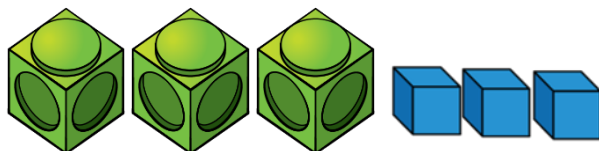
d)  $2 + 2x$



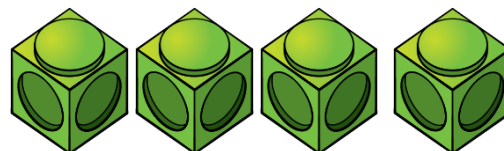
1) Use multilink and base ten to represent these expressions.



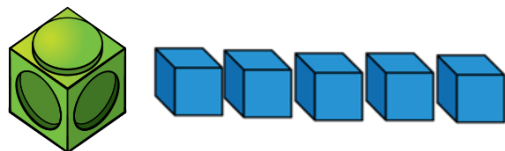
a)  $3x + 3$



b)  $4x$



c)  $x + 5$



d)  $2 + 2x$



# Substitution

$$\bigcirc = 10$$

$$\triangle = 5$$

What would be the totals of these calculations?

$$\bigcirc + \triangle + \triangle = 20$$

$$\bigcirc + \bigcirc + \bigcirc + \triangle = 35$$

Have a think

If  $x = 10$ 

$$10 + 4 \boxed{\phantom{00}}$$

$$(3 \times 10) \boxed{\phantom{00}}$$

$$10 \div \frac{x}{2} \boxed{\phantom{00}}$$

$$\frac{2x}{20} + 1 \boxed{\phantom{00}}$$

# Challenge- Squares only

Have a think



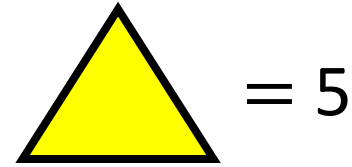
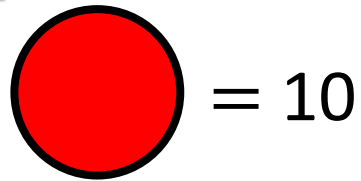
If  $t = 5$  and  $g = 6$

$$g - t = \boxed{\phantom{000}} \quad \underline{3t} + \underline{4g} + \underline{6g} + \underline{7t} = \boxed{\phantom{000}}$$
$$6 - 5 \quad 10g + 10t = \boxed{\phantom{000}}$$

$$\frac{(4t+5g)}{10} = \boxed{\phantom{000}} \quad 4(g - t) = \boxed{\phantom{000}}$$

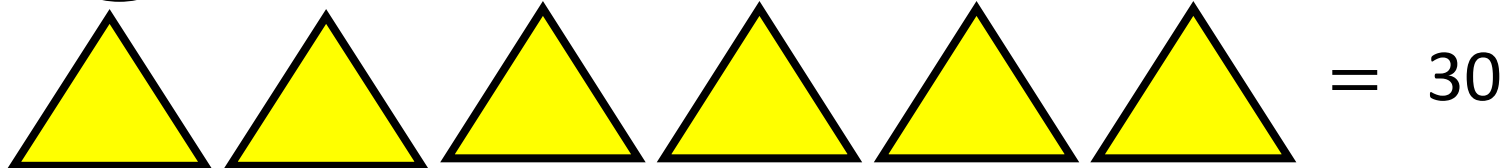
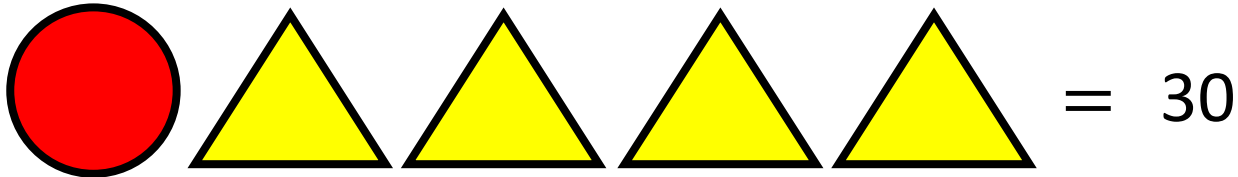
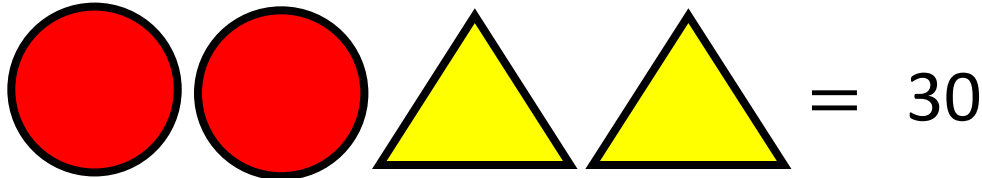
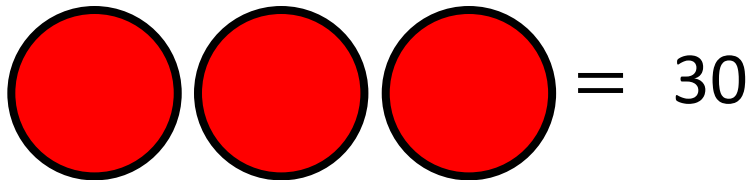


Triangles- paper-  
photo books



Use cubes  
Mrs Lund

How many different ways  
could we total 30?



# Triangles

1

$$\text{Orange Pentagon} = 4 \quad \text{Yellow Circle} = 5$$

Use the given facts to work out the calculations.

a)  $\text{Orange Pentagon} + \text{Orange Pentagon} + \text{Yellow Circle}$

b)  $\text{Orange Pentagon} + \text{Orange Pentagon} - \text{Yellow Circle}$

c)  $\text{Yellow Circle} + \text{Yellow Circle} + \text{Yellow Circle} + \text{Orange Pentagon} + \text{Orange Pentagon}$

2

$$\text{Purple Triangle} = 12 \quad \text{Red Square} = 5$$

Use the given facts to work out the calculations.

a)  $\text{Purple Triangle} - \text{Red Square}$

b)  $\text{Purple Triangle} \times \text{Red Square}$

c) Create your own calculation that will be equal to 22

1

$$\text{orange pentagon} = 4 \quad \text{yellow circle} = 5$$

Use the given facts to work out the calculations.

a)  $\text{orange pentagon} + \text{orange pentagon} + \text{yellow circle}$

b)  $\text{orange pentagon} + \text{orange pentagon} - \text{yellow circle}$

c)  $\text{yellow circle} + \text{yellow circle} + \text{yellow circle} + \text{orange pentagon} + \text{orange pentagon}$

2

$$\text{purple triangle} = 12 \quad \text{red square} = 5$$

Use the given facts to work out the calculations.

a)  $\text{purple triangle} - \text{red square}$

b)  $\text{purple triangle} \times \text{red square}$

c) Create your own calculation that will be equal to 22

1

$$\text{orange pentagon} = 4 \quad \text{yellow circle} = 5$$

Use the given facts to work out the calculations.

a)  $\text{orange pentagon} + \text{orange pentagon} + \text{yellow circle}$

b)  $\text{orange pentagon} + \text{orange pentagon} - \text{yellow circle}$

c)  $\text{yellow circle} + \text{yellow circle} + \text{yellow circle} + \text{orange pentagon} + \text{orange pentagon}$

2

$$\text{purple triangle} = 12 \quad \text{red square} = 5$$

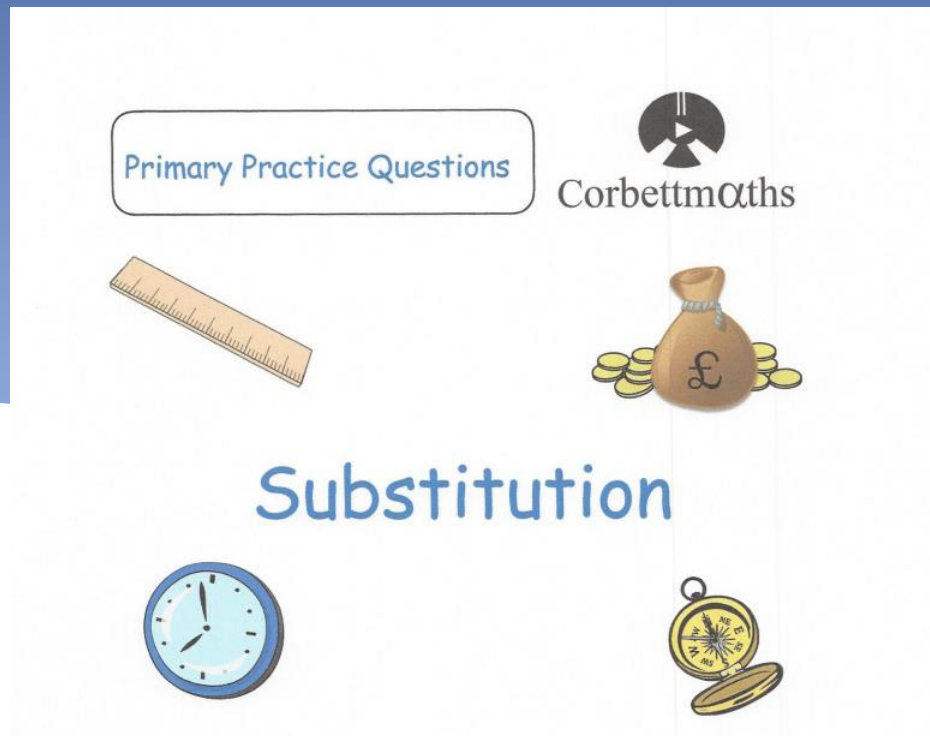
Use the given facts to work out the calculations.

a)  $\text{purple triangle} - \text{red square}$

b)  $\text{purple triangle} \times \text{red square}$

c) Create your own calculation that will be equal to 22

# Squares- Corbett Maths questions



# Daily Maths Meeting



Thurs EW plan