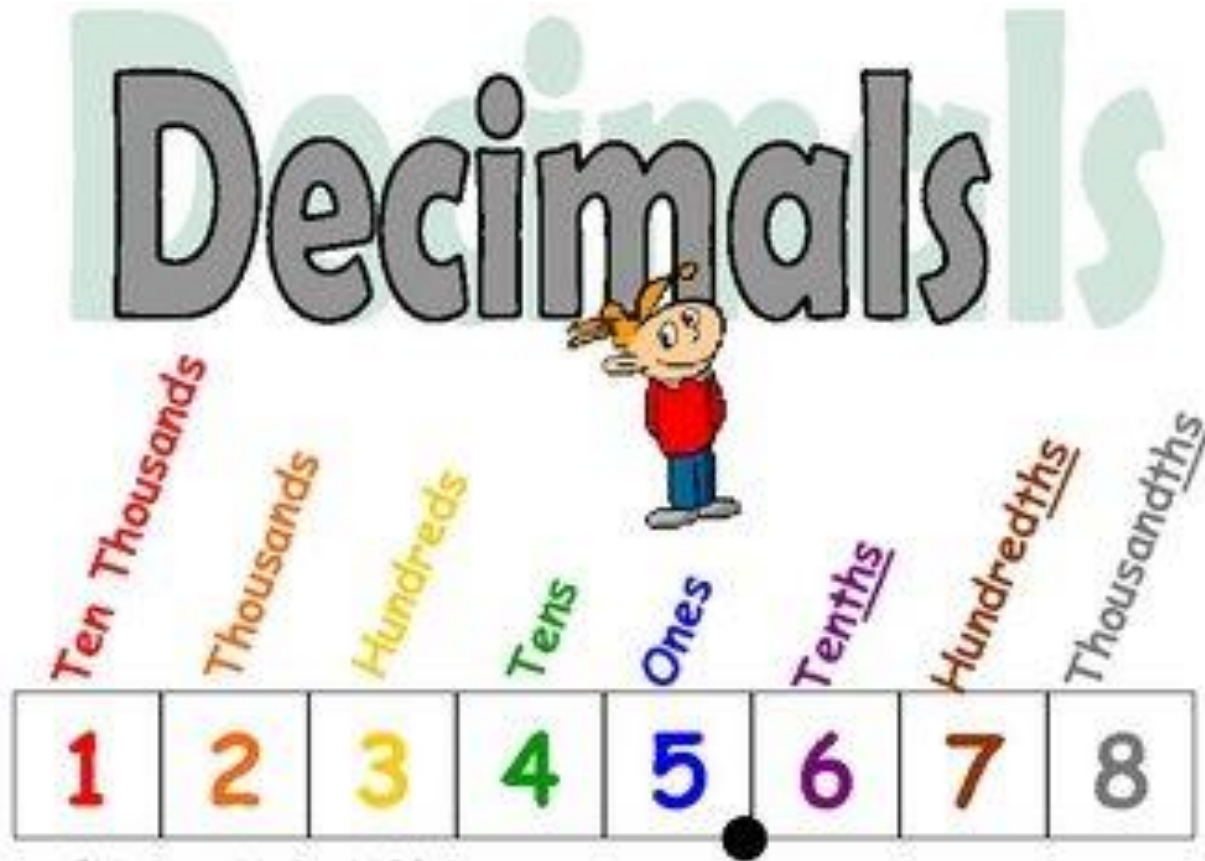


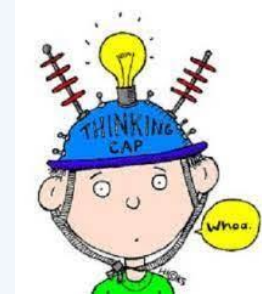
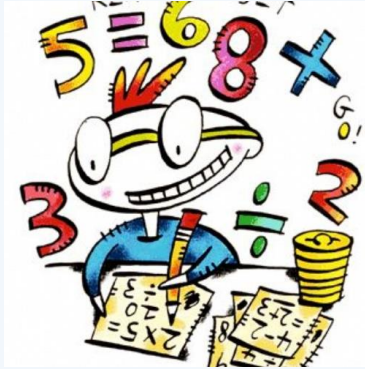
# Spring 1 -Week 3 Decimals 16.1.23



<https://www.mathsisfun.com/worksheets/decimals.php>

<https://www.bbc.co.uk/bitesize/topics/zsjqtfr/articles/zsbd7p3>

## Maths Three Repeating Golden Threads



Fluency

Quick and efficient recall of facts and procedures

Mastery

Pupils acquire a deep, long-term, secure adaptable understanding

Application

The use of maths everyday in the real world, outside the classroom.



mastery ↔ fluency ↔ application

Term Spring 1 Week beginning 10/1/23

Block Decimals

Key vocabulary tenths hundredths  
decimal point thousandths whole number  
rounding place value digit column

|                                     | B | W | S |
|-------------------------------------|---|---|---|
| Place value within 1                |   |   |   |
| Place value - integers and decimals |   |   |   |
| Round decimals                      |   |   |   |
| Add and subtract decimals           |   |   |   |
| Multiply by 10, 100 and 1,000       |   |   |   |
| Divide by 10, 100 and 1,000         |   |   |   |
| Multiply decimals by integers       |   |   |   |
| Divide decimals by integers         |   |   |   |

Stem sentences

- There are ones, tenths, hundredths and thousandths
- The number is
- There are in
- is 10/100/1,000 times the size of
- is one-tenth/hundredth/thousandth the size of
- The previous/next multiple of is
- is closer to than
- So rounded to the nearest is

Mon 16.1.23

LO: To add and subtract decimal numbers

True or False ?

Place value – integers and decimals



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2.5 is less than 2.50

**Do now- books-  
Prove it!**

True or False ?

Place value - integers and decimals

2.5 is less than 2.50

True or False ?

Place value - integers and decimals

2.5 is less than 2.50

True or False ?

Place value - integers and decimals

2.5 is less than 2.50

True or False ?

Place value - integers and decimals

2.5 is less than 2.50

True or False ?

Place value - integers and decimals

2.5 is less than 2.50

Mon

True or False ?

Place value - integers and decimals

2.5 is less than 2.50

# False

2.5 is equal to 2.50

| Tens | Ones | Tenths                 | Hundredths |
|------|------|------------------------|------------|
|      | 1 1  | 0.1 0.1 0.1<br>0.1 0.1 |            |
| 0    | 2    | 5                      | 0          |

We do not need place value holders at the beginning or end of a number.

# Crucial vocabulary

**tenths** – the first number to the right of the decimal point

**Hundredths:** The second decimal place to the right of the decimal point; 1 of 100 equal parts. Example: .8 7

**Thousandths:** The third decimal place to the right of the decimal point; 1 of 100 equal parts. Example: .6 4 3

**Decimal Point:** A period separating the ones and tenths in a decimal number.  
Example: **7.4**

**Whole Numbers:** The set of all counting numbers and 0. Example: **296**

exchange  
addition  
subtraction

# Crucial vocabulary

**tenths** – the first number to the right of the decimal point

**Hundredths:** The second decimal place to the right of the decimal point; 1 of 100 equal parts. Example: .8 7

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exchange  
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subtraction

Mon

# Crucial vocabulary

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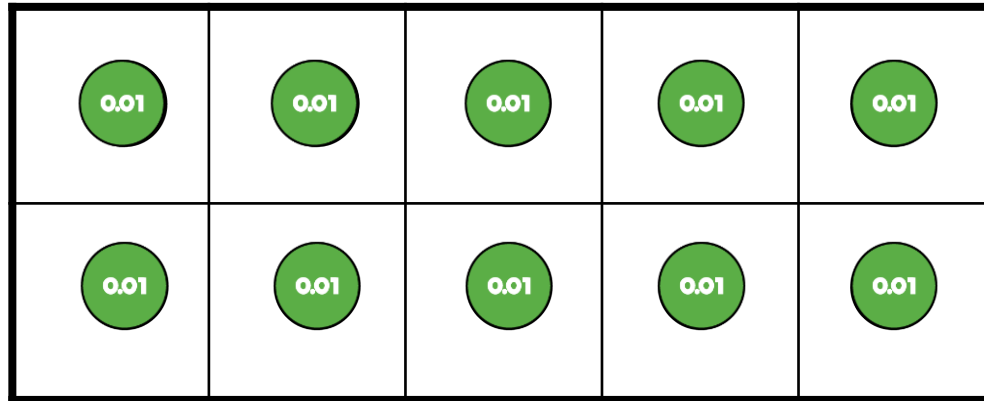
**Decimal Point:** A period separating the ones and tenths in a decimal number.  
Example: 7.4

exchange  
addition  
subtraction



The frame is worth 1 whole.

What would each square be worth?



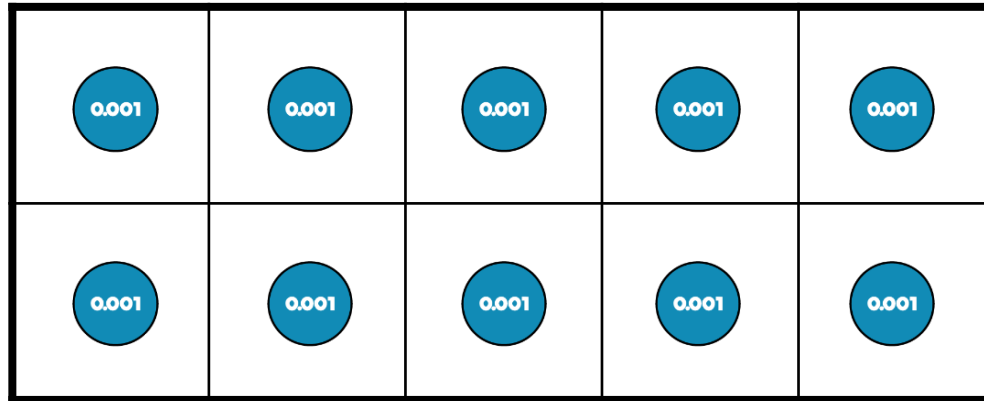
10 ones = 1 ten

10 tenths = 1 whole

10 hundredths = 1 tenth

# Revision

The frame is worth 1 hundredth.  
What would each square be worth?



10 ones = 1 ten

10 tenths = 1 whole

10 hundredths = 1 tenth

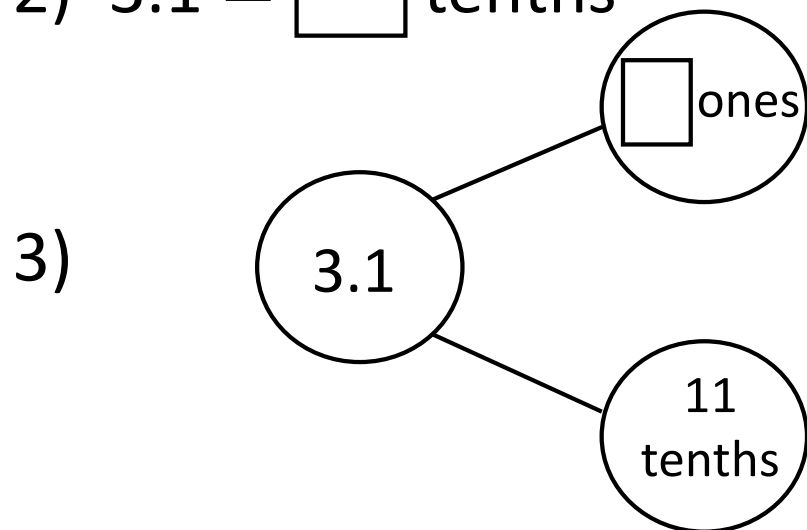
10 thousandths = 1 hundredth

# Revision

1) 3 ones =  tenths

Talk  
partner....

2) 3.1 =  tenths

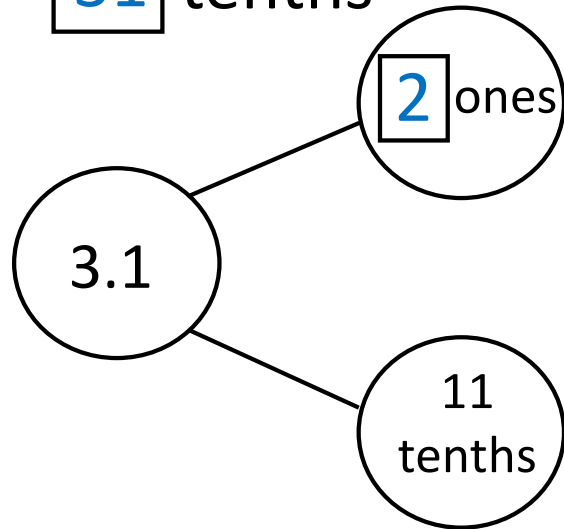


4) 37 hundredths =  thousandths

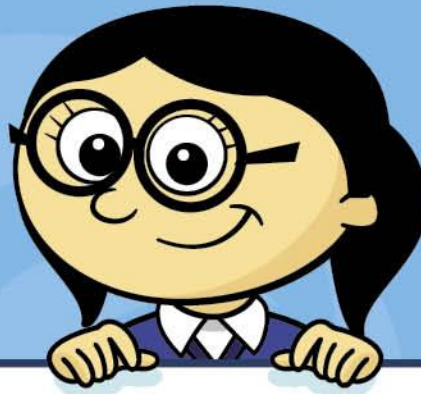
1) 3 ones = 30 tenths

2) 3.1 = 31 tenths

3)



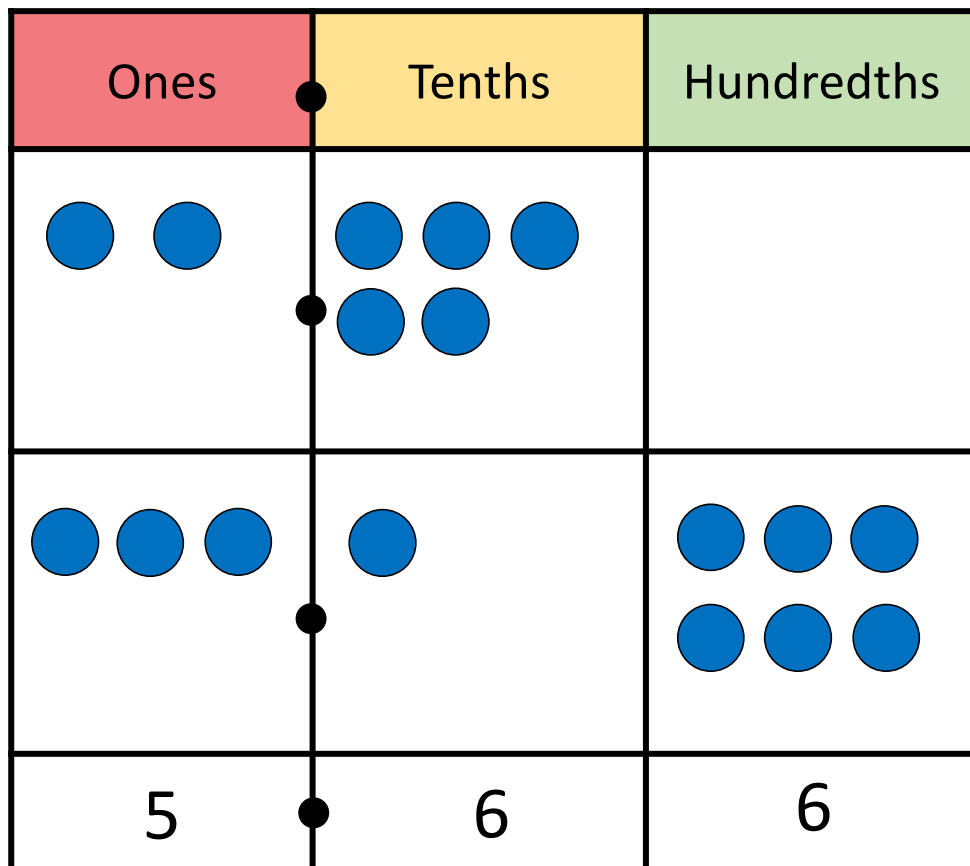
4) 37 hundredths = 370 thousandths



# Let's learn

Get ready for today's  
new learning.

$$2.5 + 3.16 = 5.66$$



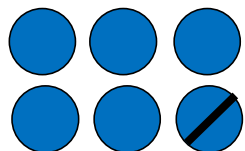
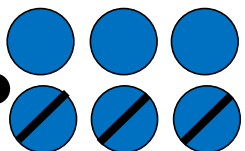
|   |   |     |     |   |
|---|---|-----|-----|---|
|   | 0 | Tth | Hth |   |
|   | 2 | 5   | 0   | 5 |
| + | 3 | 1   | 6   | 6 |
|   | 5 | 6   | 6   |   |
|   |   |     |     |   |

Can you make an **exchange**?

$$6.73 - 1.3 = 5.43$$

Have a think



| Ones                                                                              | Tenths                                                                            | Hundredths                                                                         |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|  |  |  |
| 5                                                                                 | 4                                                                                 | 3                                                                                  |

|   | O | Tth | Hth |
|---|---|-----|-----|
|   | 6 | 7   | 3   |
| — | 1 | 3   | 0   |
|   | 5 | 4   | 3   |
|   |   |     |     |

Can you make an exchange?



# Your turn

Have a go at questions 1 - 2 on  
the worksheet



Mon

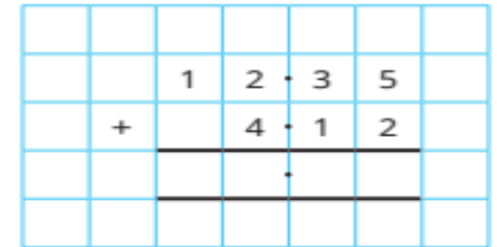
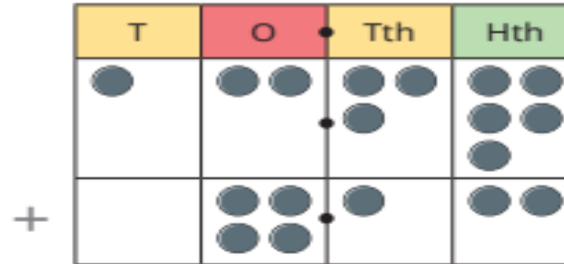
Triangles and  
Squares write on  
sheet

Hexagon and  
Octagons copy  
into books

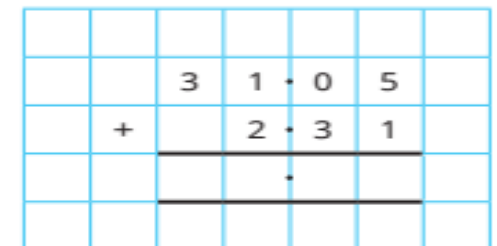
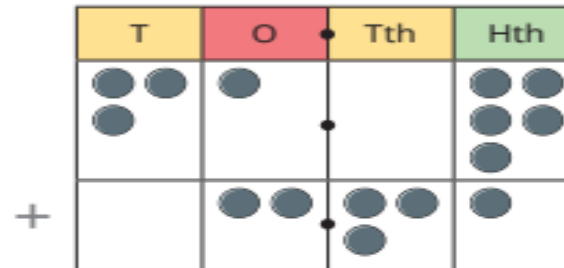


**1** Use the place value charts to complete the additions.

a)

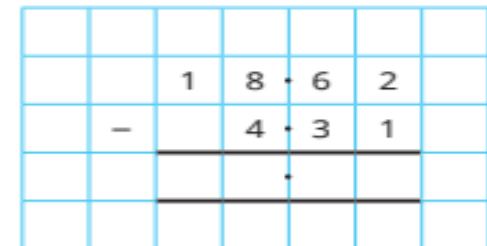
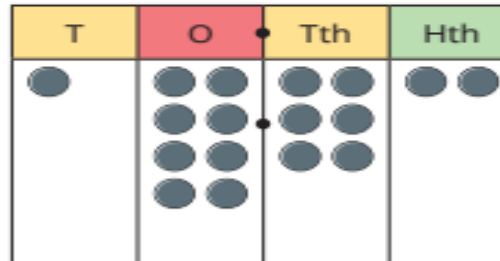


b)

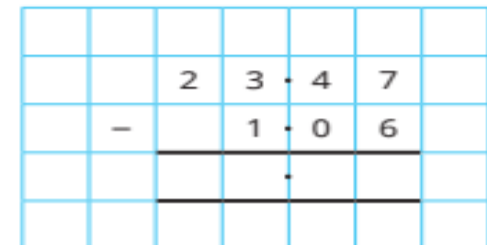
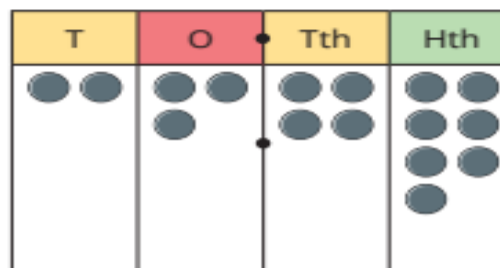


**2** Use the place value charts to complete the subtractions.

a)



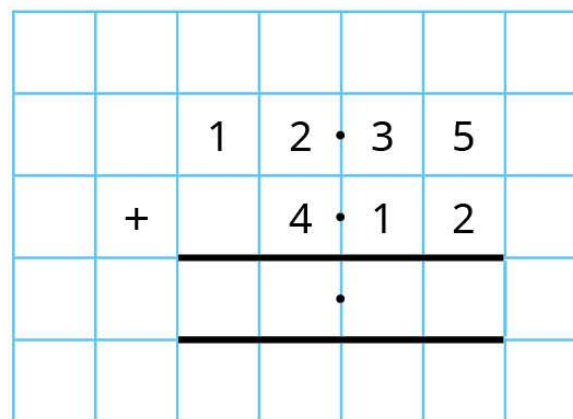
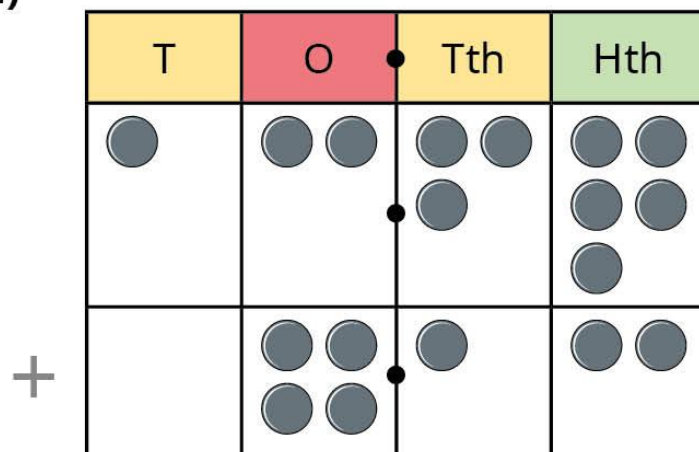
b)



# Add and subtract decimals

1 Use the place value charts to complete the additions.

a)



1

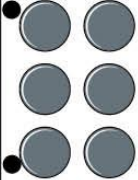
b)

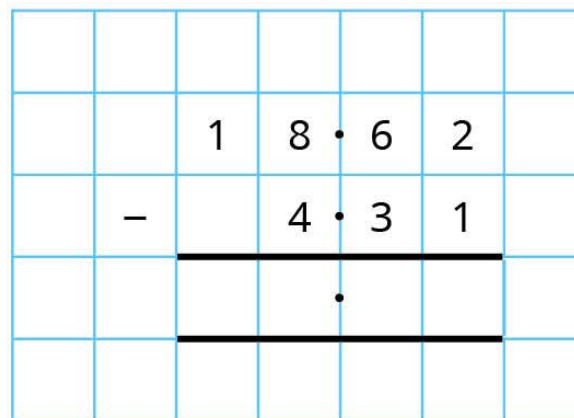
| T                                                                                 | O                                                                                 | Tth                                                                               | Hth                                                                               |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |                                                                                   |  |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                                                                                   |  |  |  |

+

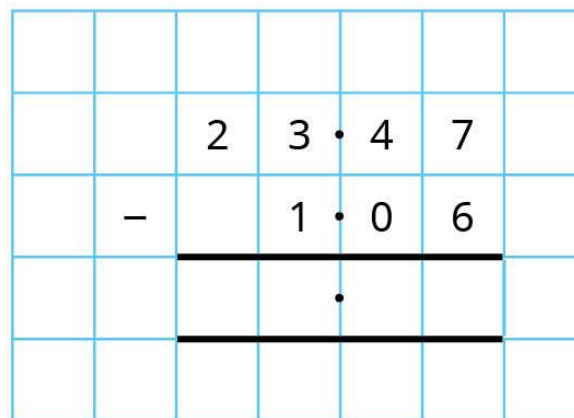
|  |   |       |   |   |   |   |
|--|---|-------|---|---|---|---|
|  |   |       |   |   |   |   |
|  |   | 3     | 1 | • | 0 | 5 |
|  | + |       | 2 | • | 3 | 1 |
|  |   | <hr/> |   |   |   |   |
|  |   |       |   | • |   |   |
|  |   | <hr/> |   |   |   |   |
|  |   |       |   |   |   |   |

Use the place value charts to complete the subtractions.

| T                                                                                 | O                                                                                 | Tth                                                                               | Hth                                                                               |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |  |  |



| T                                                                                   | O                                                                                   | Tth                                                                                 | Hth                                                                                 |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |



$$3.108 + 2.154 = 5.262$$

Have a think

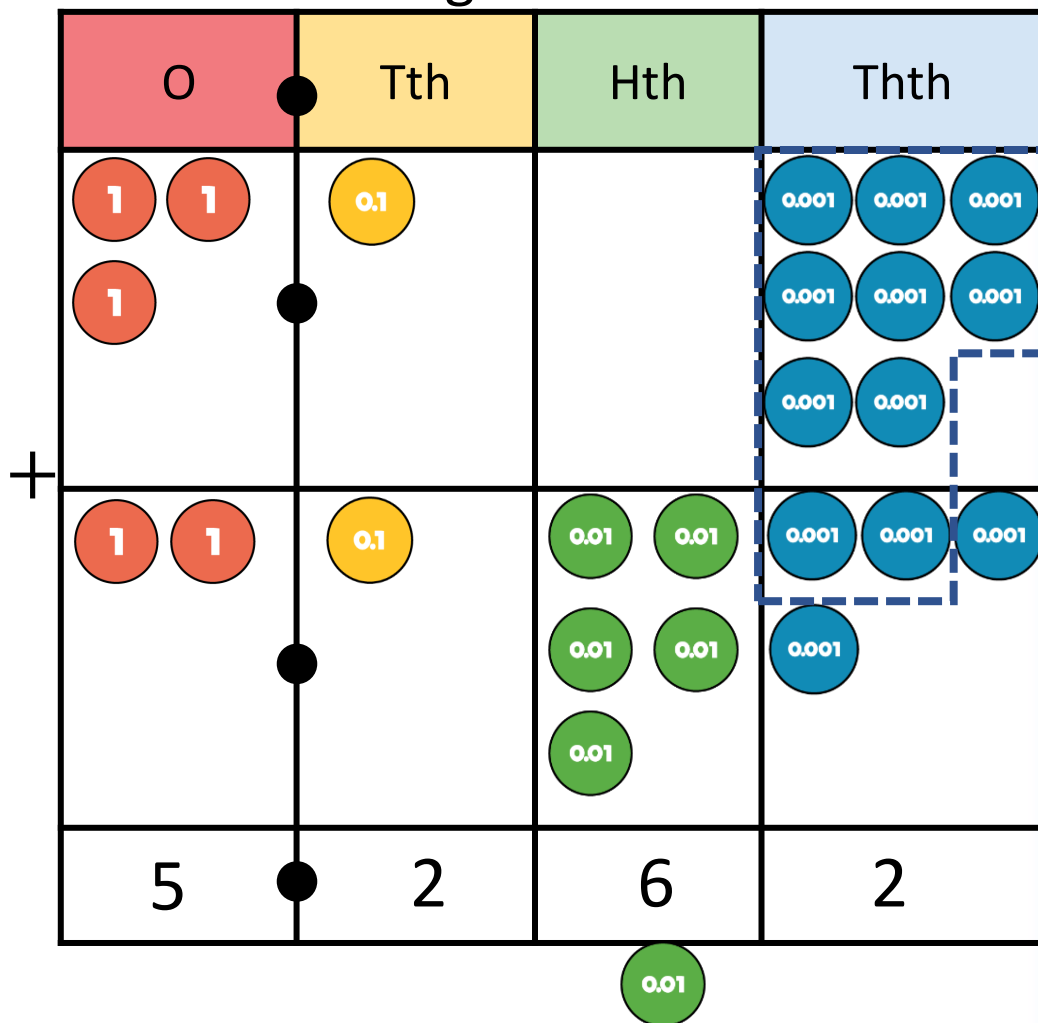


Which columns will involve an exchange?

|   | O | Tth | Hth | Thth |
|---|---|-----|-----|------|
|   | 3 | 1   | 0   | 8    |
| + | 2 | 1   | 5   | 4    |
|   | 5 | 2   | 6   | 2    |

1

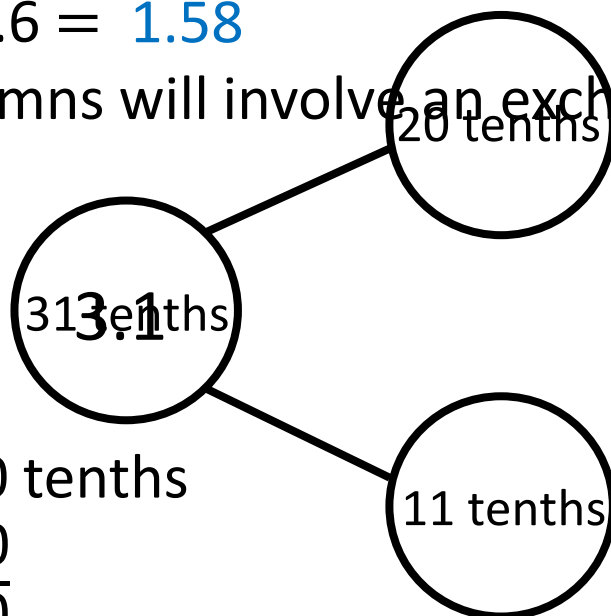
I can exchange  
10 thousandths  
for 1 hundredth



$$3.18 - 1.6 = 1.58$$

Which columns will involve an exchange?

Have a think



1 one = 10 tenths

$$1 = \frac{10}{10}$$

|   | O            | Tth          | Hth |
|---|--------------|--------------|-----|
|   | <del>2</del> | <del>1</del> | 8   |
| — | 1            | 6            | 0   |
|   | 1            | 5            | 8   |

| Ones | Tenths | Hundredths |
|------|--------|------------|
|      |        |            |
| 1    | 5      | 8          |

Complete the calculations.

$$15.027 + 9.58 = 24.607$$

$$0.468 - 0.28$$

|       | T | O | Tth | Hth | Thth |
|-------|---|---|-----|-----|------|
|       | 1 | 5 | 0   | 2   | 7    |
| +     | 0 | 9 | 5   | 8   | 0    |
| <hr/> |   |   |     |     |      |
|       | 2 | 4 | 6   | 0   | 7    |
|       | 1 | 1 |     |     |      |

I can exchange 10 hundredths for 1 tenth

Have a think  
Can you make an exchange?



Complete the calculations.

$$15.027 + 9.58 = 24.607$$

$$0.468 - 0.28 = 0.188$$

|       | T | O | · Tth | Hth | Thth |
|-------|---|---|-------|-----|------|
|       | 1 | 5 | · 0   | 2   | 7    |
| +     | 0 | 9 | · 5   | 8   | 0    |
| <hr/> |   |   |       |     |      |
|       | 2 | 4 | · 6   | 0   | 7    |
|       | 1 |   |       | 1   |      |

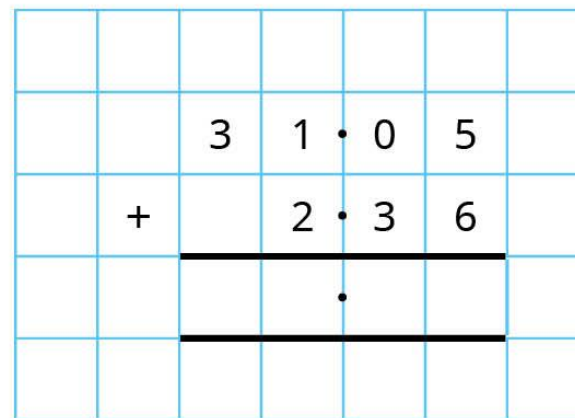
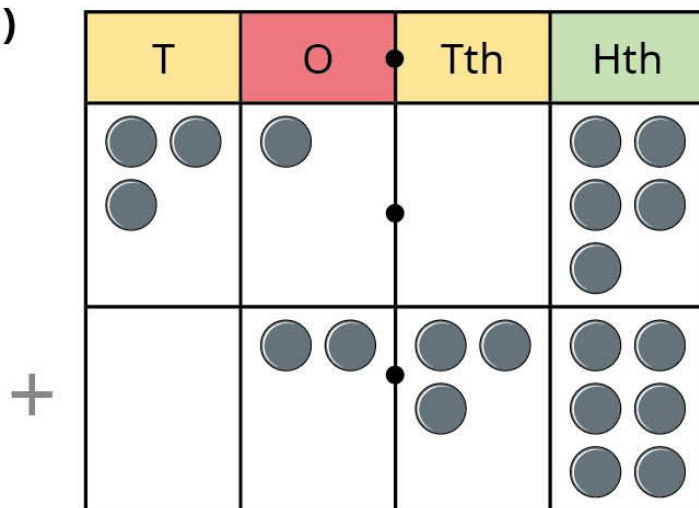
|       | O | · Tth                     | Hth            | Thth |
|-------|---|---------------------------|----------------|------|
|       | 0 | <sup>3</sup> <del>4</del> | <sup>1</sup> 6 | 8    |
| −     | 0 | · 2                       | 8              | 0    |
| <hr/> |   |                           |                |      |
|       | 0 | · 1                       | 8              | 8    |

I can exchange 1 tenth for 10 hundredths

Can you make an exchange?

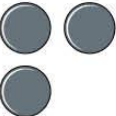
4 Use the place value charts to complete the additions.

a)



4

b)

| T                                                                                 | O                                                                                 | Tth                                                                               | Hth                                                                               |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |  |  |
| +                                                                                 |                                                                                   |                                                                                   |                                                                                   |
|                                                                                   |  |  |                                                                                   |

|  |   |       |   |   |   |   |
|--|---|-------|---|---|---|---|
|  |   |       |   |   |   |   |
|  |   | 2     | 3 | • | 6 | 2 |
|  | + |       | 2 | • | 6 |   |
|  |   | <hr/> |   |   |   |   |
|  |   |       |   | • |   |   |
|  |   | <hr/> |   |   |   |   |
|  |   |       |   |   |   |   |

5

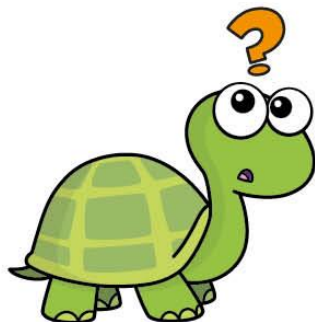
Use the place value charts to complete the subtractions.

a)

| T   | O     | Tth     | Hth |
|-----|-------|---------|-----|
| ● ● | ● ● ● | ● ● ● ● | ● ● |
|     | ●     | ● ●     |     |
|     |       |         |     |
|     |       |         |     |
|     |       |         |     |
|     |       |         |     |
|     |       |         |     |

|  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
|  |   |   |   |   |   |   |
|  |   | 2 | 3 | • | 4 | 2 |
|  | - |   | 1 | • | 0 | 6 |
|  |   |   |   |   |   |   |
|  |   |   |   | • |   |   |
|  |   |   |   |   |   |   |

6 Tiny has worked out  $11.84 - 5.3$



|  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
|  |   |   |   |   |   |   |
|  |   | 1 | 1 | 8 | • | 4 |
|  | - |   |   | 5 | • | 3 |
|  |   | 1 | 1 | 3 | • | 1 |
|  |   |   |   |   |   |   |

- What mistake has Tiny made?
- What is the correct answer?

# Copy into books



7

Complete the calculations.

a)  $12.25 + 3.09 =$

d)  $2.3 + 8.712 =$

b)  $12.25 - 3.09 =$

e)   $= 8.712 - 1.9$

c)  $1.825 + 4.67 =$

f)   $= 13.807 - 7.08$



8

Here are three planks of wood.

A



B



C



- Plank A is 0.56 m long.
- The length of plank B is double the length of plank A.
- Plank C is 0.145 m shorter than plank B.

What is the total length of all three planks?

 m

# Oct Hex

- 6 Tiny has worked out  $11.84 - 5.3$
- a) What mistake has Tiny made?
- b) What is the correct answer?

|  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
|  |   |   |   |   |   |   |
|  |   | 1 | 1 | 8 | • | 4 |
|  | - |   |   | 5 | • | 3 |
|  |   | 1 | 1 | 3 | • | 1 |
|  |   |   |   |   |   |   |

- 7 Complete the calculations.

a)  $12.25 + 3.09$

c)  $1.825 + 4.67$

e)  $8.712 - 1.9$

b)  $12.25 - 3.09$

d)  $2.3 + 8.712$

f)  $13.807 - 7.08$

- 8 Here are three planks of wood.

A



B



C



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What is the total length of all three planks?



- 6 Tiny has worked out  $11.84 - 5.3$
- a) What mistake has Tiny made?
- b) What is the correct answer?

|  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
|  |   |   |   |   |   |   |
|  |   | 1 | 1 | 8 | • | 4 |
|  | - |   |   | 5 | • | 3 |
|  |   | 1 | 1 | 3 | • | 1 |
|  |   |   |   |   |   |   |
|  |   |   |   |   |   |   |

- 7 Complete the calculations.

- a)  $12.25 + 3.09$       c)  $1.825 + 4.67$       e)  $8.712 - 1.9$
- b)  $12.25 - 3.09$       d)  $2.3 + 8.712$       f)  $13.807 - 7.08$

- 8 Here are three planks of wood.



- Plank A is 0.56 m long.
- The length of plank B is double the length of plank A.
- Plank C is 0.145 m shorter than plank B.

What is the total length of all three planks?

- 6 Tiny has worked out  $11.84 - 5.3$
- a) What mistake has Tiny made?
- b) What is the correct answer?

|  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
|  |   |   |   |   |   |   |
|  |   | 1 | 1 | 8 | • | 4 |
|  | - |   |   | 5 | • | 3 |
|  |   | 1 | 1 | 3 | • | 1 |
|  |   |   |   |   |   |   |
|  |   |   |   |   |   |   |

- 7 Complete the calculations.

- a)  $12.25 + 3.09$       c)  $1.825 + 4.67$       e)  $8.712 - 1.9$
- b)  $12.25 - 3.09$       d)  $2.3 + 8.712$       f)  $13.807 - 7.08$

- 8 Here are three planks of wood.



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- The length of plank B is double the length of plank A.
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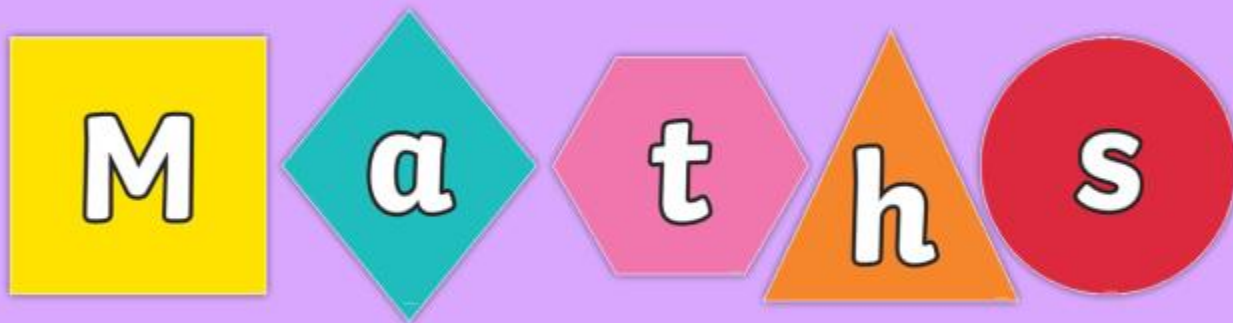
What is the total length of all three planks?

**Y6 – Spring – Block 3 – Step 4 – Add and subtract decimals Answers**

| Question | Answer                                                                                                                                                                  |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1        | a) 16.47<br>b) 33.36                                                                                                                                                    |
| 2        | a) 14.31<br>b) 22.41                                                                                                                                                    |
| 3        | 10 hundredths can be exchanged for 1 <b>tenth</b><br>10 tenths can be exchanged for 1 <b>one</b><br>10 ones can be exchanged for 1 <b>ten</b>                           |
| 4        | a) 33.41<br>b) 26.22                                                                                                                                                    |
| 5        | a) 22.36<br>b) 20.92                                                                                                                                                    |
| 6        | a) Tiny has placed the decimal point in 11.84 in the incorrect place, which has misaligned the addition. Tiny has subtracted 5.3 from 118.4 instead of 11.84<br>b) 6.54 |
| 7        | a) 15.34<br>b) 9.16<br>c) 6.495<br>d) 11.012<br>e) 6.812<br>f) 6.727                                                                                                    |
| 8        | 2.655 m                                                                                                                                                                 |

# Mon-Maths meeting

## Key skills check 2 Stage 6



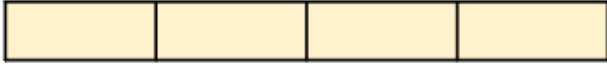
Tues 17.1.23

LO: To multiply decimals by  
10, 100, 1000

# Flashback 4

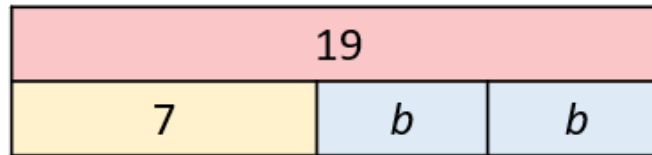
Year 6 | Week 5 | Day 1

1)  $x = \square$   
 $y = \square$

$x$    $y$   } 15



2) Write as an equation.



3) A 3 cm by 2 cm rectangle has been enlarged.  
Its new perimeter is 30 cm.  
What scale factor was the shape enlarged by?

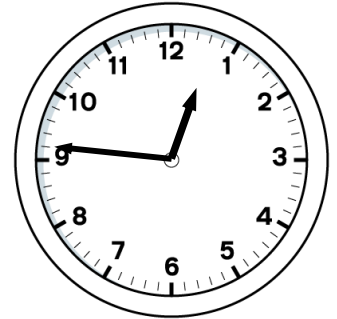
4)  $17,350 = 10,000 + 7,000 + \square + \square$

## Whiteboards

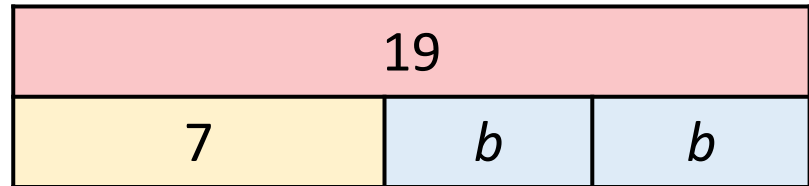
1)  $x = \square$   
 $y = \square$

$x$    $y$  

} 15



2) Write as an equation.

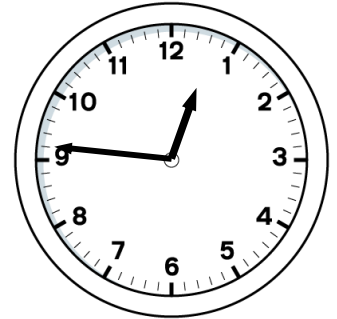


3) A 3 cm by 2 cm rectangle has been enlarged.  
 Its new perimeter is 30 cm.  
 What scale factor was the shape enlarged by?

4)  $17,350 = 10,000 + 7,000 + \square + \square$

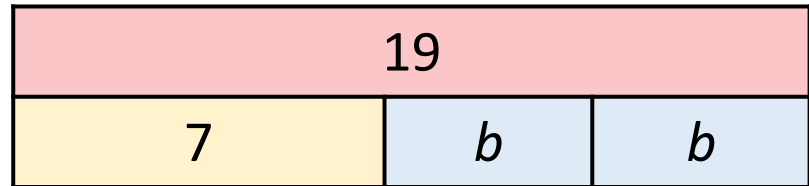
1)  $x = \boxed{12}$   
 $y = \boxed{3}$

$x$    $y$   } 15



2) Write as an equation.

$$19 = 2b + 7$$



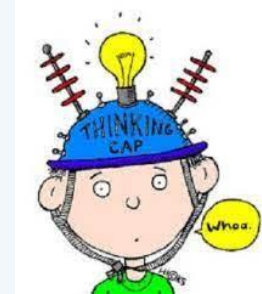
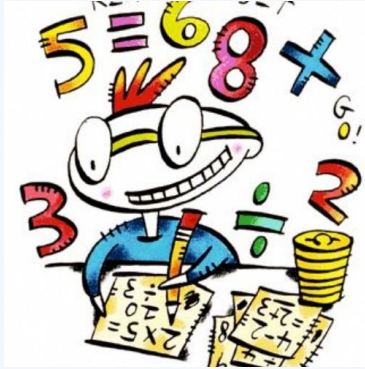
3) A 3 cm by 2 cm rectangle has been enlarged.

Its new perimeter is 30 cm.

What scale factor was the shape enlarged by? **3**

4)  $17,350 = 10,000 + 7,000 + \boxed{300} + \boxed{50}$

## Maths Three Repeating Golden Threads



Fluency

Quick and efficient recall of facts and procedures

Mastery

Pupils acquire a deep, long-term, secure adaptable understanding

Application

The use of maths everyday in the real world, outside the classroom.



mastery  $\longleftrightarrow$  fluency  $\longleftrightarrow$  application

Term Spring 1 Week beginning 10/1/23

Block Decimals

Key vocabulary tenths hundredths  
decimal point thousandths whole number  
rounding place value digit column

|                                     | B | W | S |
|-------------------------------------|---|---|---|
| Place value within 1                |   |   |   |
| Place value - integers and decimals |   |   |   |
| Round decimals                      |   |   |   |
| Add and subtract decimals           |   |   |   |
| Multiply by 10, 100 and 1,000       |   |   |   |
| Divide by 10, 100 and 1,000         |   |   |   |
| Multiply decimals by integers       |   |   |   |
| Divide decimals by integers         |   |   |   |

Stem sentences

- There are ones, tenths, hundredths and thousandths
- The number is
- There are in
- is 10/100/1,000 times the size of
- is one-tenth/hundredth/thousandth the size of
- The previous/next multiple of is
- is closer to than
- So rounded to the nearest is

# Crucial vocabulary

**tenths** — the first number to the right of the decimal point

**Hundredths:** The second decimal place to the right of the decimal point; 1 of 100 equal parts. Example: .8 7

**Thousandths:** The third decimal place to the right of the decimal point; 1 of 100 equal parts. Example: .6 4 3

**Decimal Point:** A period separating the ones and tenths in a decimal number.  
Example: **7.4**

**Whole Numbers:** The set of all counting numbers and 0. Example: **296**

columns  
multiply  
place value

columns  
multiply  
place value

columns  
multiply  
place value

Tues

columns  
multiply  
place value

columns  
multiply  
place value

columns  
multiply  
place value

columns  
multiply  
place value

1)  $32 \times 10 =$

$32 \times 100 =$

$32 \times 1,000 =$

2)     $\times 100 =$   


3) 

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| ?  |    |    |    |    |    |    |    |    |    |
| 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |



1)  $32 \times 10 =$   
 $32 \times 100 =$   
 $32 \times 1,000 =$

2)   $\times 100 =$

3) 

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| ?  |    |    |    |    |    |    |    |    |    |
| 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |

1)  $32 \times 10 =$   
 $32 \times 100 =$   
 $32 \times 1,000 =$

2)   $\times 100 =$

3) 

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| ?  |    |    |    |    |    |    |    |    |    |
| 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |

1)  $32 \times 10 =$   
 $32 \times 100 =$   
 $32 \times 1,000 =$

2)   $\times 100 =$

3) 

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| ?  |    |    |    |    |    |    |    |    |    |
| 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |

1)  $32 \times 10 =$   
 $32 \times 100 =$   
 $32 \times 1,000 =$

2)   $\times 100 =$

3) 

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| ?  |    |    |    |    |    |    |    |    |    |
| 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |

1)  $32 \times 10 = 320$

$32 \times 100 = 3,200$

$32 \times 1,000 = 32,000$

2)   $\times 100 = 12,100$

  
121

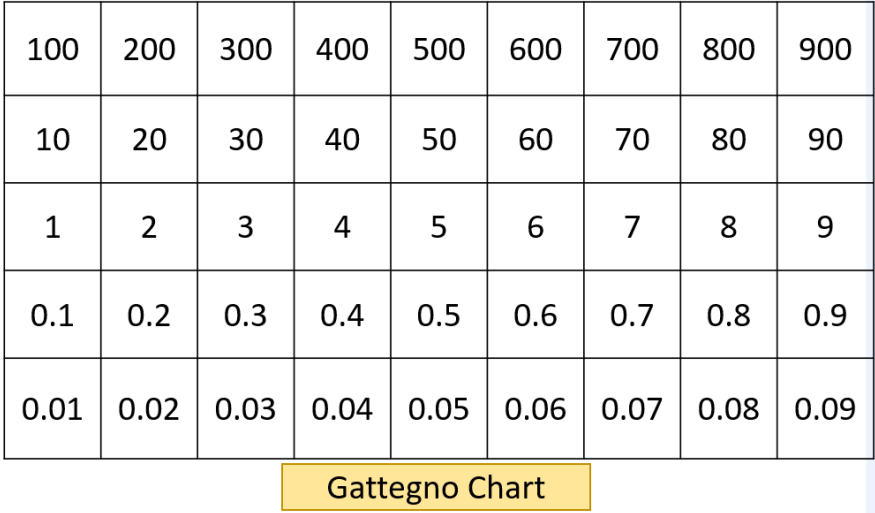
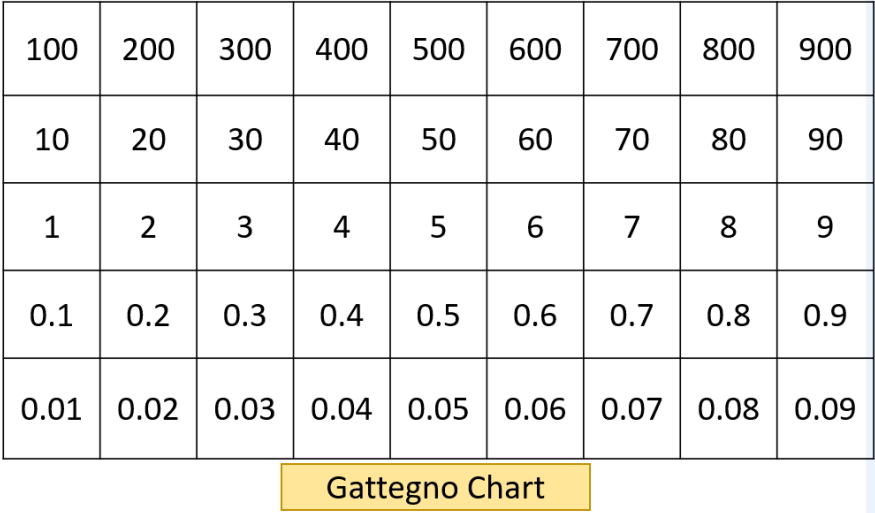
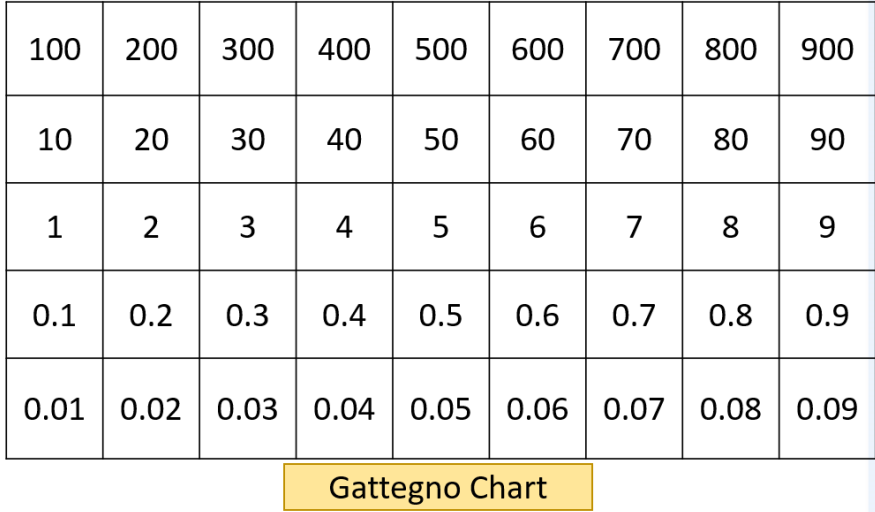
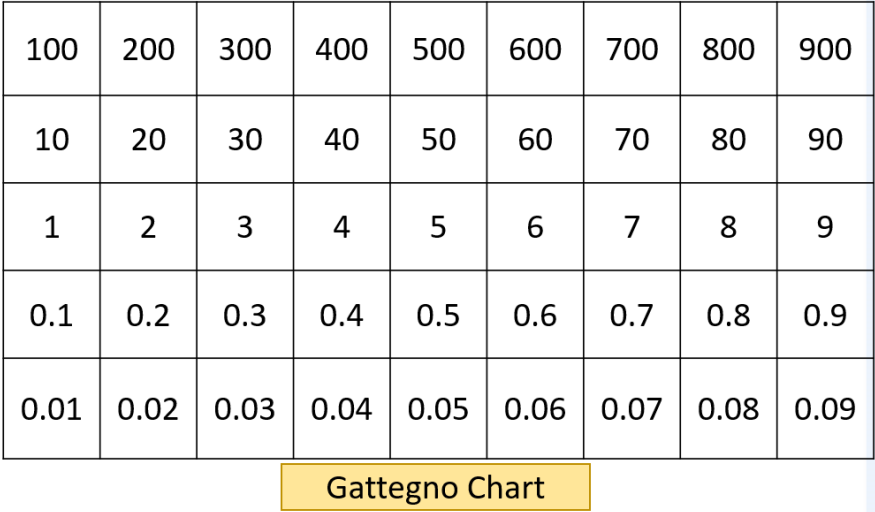
3) 

|     |    |    |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|----|
| 970 |    |    |    |    |    |    |    |    |    |
| 97  | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |



# Let's learn

Get ready for today's  
new learning.



Tues

|      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|
| 100  | 200  | 300  | 400  | 500  | 600  | 700  | 800  | 900  |
| 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   |
| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
| 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  |
| 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |

Gattegno Chart

Which counter has the highest value?

How many times greater is the red counter compared to the blue counter?

|      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|
| 100  | 200  | 300  | 400  | 500  | 600  | 700  | 800  | 900  |
| 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   |
| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
| 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  |
| 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |

$\times 10$



3

0.3

$$0.3 \times 10 = 3$$

3 is 10 times the size of 0.3

0.3 is one-tenth the size of 3

|      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|
| 100  | 200  | 300  | 400  | 500  | 600  | 700  | 800  | 900  |
| 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   |
| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
| 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  |
| 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |

$$0.5 \times 10 \times 10 = 50$$

$$0.5 \times 100 = 50$$

50 is 100 times the size of 0.5

0.5 is one-hundredth the size of 50

$$0.6 \times 1,000 = 600$$

600 is 1,000 times the size of 0.6

Have a think



|      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|
| 100  | 200  | 300  | 400  | 500  | 600  | 700  | 800  | 900  |
| 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   |
| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
| 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  |
| 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |



Write two other facts you can work out by using the chart

- Jack uses a Gattegno chart to work out that  $0.46 \times 100 = 46$

|      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|
| 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   |
| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
| 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  |
| 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |

Use a Gattegno chart to work out the calculations.

►  $0.19 \times 100$

►  $2.05 \times 100$

►  $1.513 \times 100$



shutterstock.com/152526652

When the number is multiplied by 10 the counters/digits  
move \_\_\_\_\_ place to the \_\_\_\_\_.

When the number is multiplied by 100 the counters/digits  
move \_\_\_\_\_ places to the \_\_\_\_\_.

When the number is multiplied by 1,000 the counters/digits  
move \_\_\_\_\_ places to the \_\_\_\_\_.

When the number is multiplied by 10 the counters/digits  
move \_\_\_\_\_ place to the \_\_\_\_\_.

When the number is multiplied by 100 the counters/digits  
move \_\_\_\_\_ places to the \_\_\_\_\_.

When the number is multiplied by 1,000 the counters/digits  
move \_\_\_\_\_ places to the \_\_\_\_\_.

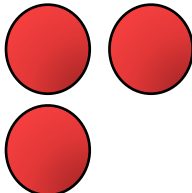
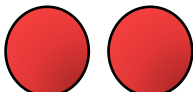
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When the number is multiplied by 100 the counters/digits  
move \_\_\_\_\_ places to the \_\_\_\_\_.

When the number is multiplied by 1,000 the counters/digits  
move \_\_\_\_\_ places to the \_\_\_\_\_.

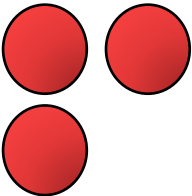
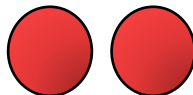


$$3.12 \times 10 = 31.2$$

| Th | H | T | O                                                                                  | • | Tth                                                                                 | Hth                                                                                 |
|----|---|---|------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|    |   |   |  | • |  |  |
|    |   |   | 3                                                                                  | • | 1                                                                                   | 2                                                                                   |

When the number is multiplied by 10 the counters/digits move 1 place to the left.

$$3.12 \times 100 = 312$$

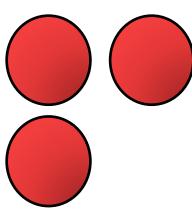
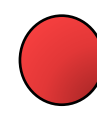
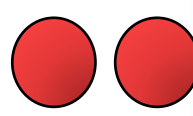
| Th | H | T | O                                                                                  | • | Tth                                                                                 | Hth                                                                                 |
|----|---|---|------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|    |   |   |  | • |  |  |
|    |   |   | 3                                                                                  | • | 1                                                                                   | 2                                                                                   |

When the number is multiplied by 100 the counters/digits move 2 places to the left.

$$3.12 \times 1,000 = 3,120$$

Have a think



| Th | H | T | O                                                                                  | .                                                                                   | Tth                                                                                 | Hth                                                                                 |
|----|---|---|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|    |   |   |  |  |  |  |
|    |   |   | 0                                                                                  | .                                                                                   | 1                                                                                   | 2                                                                                   |

When the number is multiplied by 1,000 the counters/digits move 3 places to the left.

$$2.3 \times \boxed{\phantom{00}} = 230$$

Have a think



| Th | H | T | O   | • | Tth      | Hth |
|----|---|---|-----|---|----------|-----|
|    |   |   | ● ● | ● | ● ●<br>● |     |
|    |   |   | 0   | ● | 3        |     |

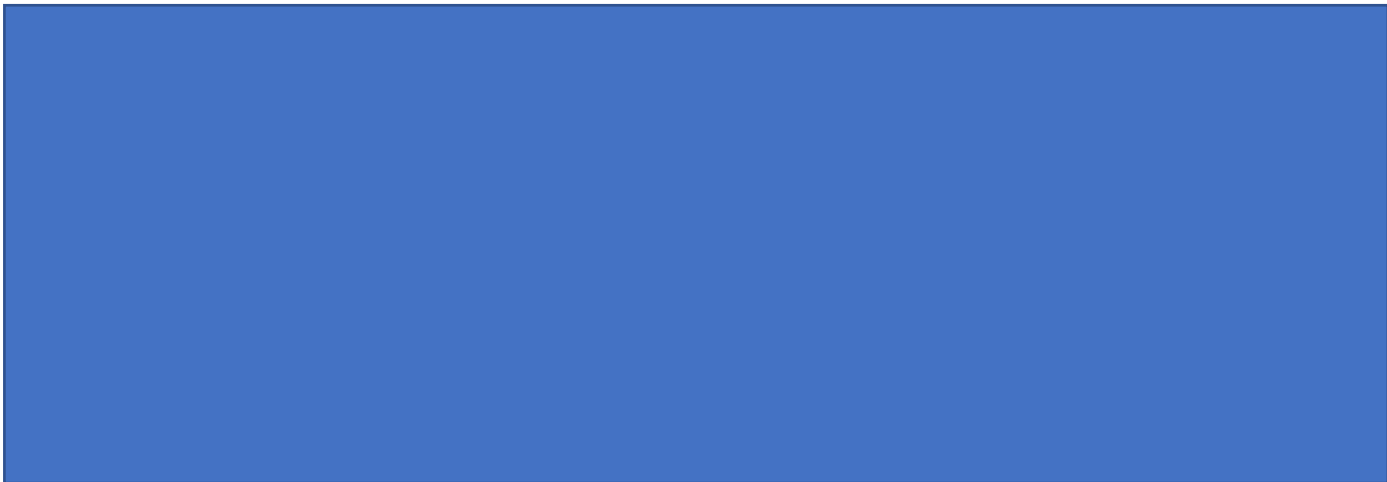
When the number is multiplied by 10 the counters move  
1 place to the left.

When the number is multiplied by 100 the counters move  
2 places to the left.

When the number is multiplied by 1,000 the counters move  
3 places to the left.



Your turn



- 3 a) Draw counters on the place value charts to represent the answer to each calculation.

$$4.4 \times 1$$

| Th | H | T | O | Tth | Hth |
|----|---|---|---|-----|-----|
|    |   |   |   |     |     |

$$4.4 \times 10$$

| Th | H | T | O | Tth | Hth |
|----|---|---|---|-----|-----|
|    |   |   |   |     |     |

$$4.4 \times 100$$

| Th | H | T | O | Tth | Hth |
|----|---|---|---|-----|-----|
|    |   |   |   |     |     |

$$4.4 \times 1,000$$

| Th | H | T | O | Tth | Hth |
|----|---|---|---|-----|-----|
|    |   |   |   |     |     |

- b) Complete the calculations.

$$4.4 \times 1 = \boxed{\phantom{000}}$$

$$4.4 \times 10 = \boxed{\phantom{000}}$$

$$4.4 \times 100 = \boxed{\phantom{000}}$$

$$4.4 \times 1,000 = \boxed{\phantom{000}}$$

What do you notice?



- 3 a) Draw counters on the place value charts to represent the answer to each calculation.

$$4.4 \times 1$$

| Th | H | T | O | Tth | Hth |
|----|---|---|---|-----|-----|
|    |   |   |   |     |     |

$$4.4 \times 10$$

| Th | H | T | O | Tth | Hth |
|----|---|---|---|-----|-----|
|    |   |   |   |     |     |

$$4.4 \times 100$$

| Th | H | T | O | Tth | Hth |
|----|---|---|---|-----|-----|
|    |   |   |   |     |     |

$$4.4 \times 1,000$$

| Th | H | T | O | Tth | Hth |
|----|---|---|---|-----|-----|
|    |   |   |   |     |     |

- b) Complete the calculations.

$$4.4 \times 1 = \boxed{\phantom{000}}$$

$$4.4 \times 10 = \boxed{\phantom{000}}$$

$$4.4 \times 100 = \boxed{\phantom{000}}$$

$$4.4 \times 1,000 = \boxed{\phantom{000}}$$

What do you notice?

Tues

4

Complete the calculations.

a)  $13.44 \times 10 =$

e)  $5.5 \times$    $= 5,500$

b)  $41.4 \times 100 =$

f)   $= 1.03 \times 100$

c)  $0.415 \times 1,000 =$

g)  $30.44 =$    $\times 10$

d)  $3.06 \times 100 =$

h)  $504 = 100 \times$

4

Complete the calculations.

a)  $13.44 \times 10 =$

e)  $5.5 \times$    $= 5,500$

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g)  $30.44 =$    $\times 10$

d)  $3.06 \times 100 =$

h)  $504 = 100 \times$



Tues

# Hexagon and Octagons- copy and complete

4

Complete the calculations.

a)  $13.44 \times 10 =$

e)  $5.5 \times$    $= 5,500$

b)  $41.4 \times 100 =$

f)   $= 1.03 \times 100$

c)  $0.415 \times 1,000 =$

g)  $30.44 =$    $\times 10$

d)  $3.06 \times 100 =$

h)  $504 = 100 \times$



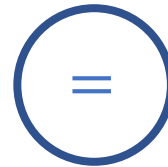
Use  $>$  ,  $<$  or  $=$  to complete the sentences.

$$7.2 \times 10 \times 10$$
$$7.2 \times 100$$



$$7.2 \times 1,000$$

$$7.2 \times 100 \times 10$$
$$7.2 \times 1,000$$



$$7.2 \times 1,000$$

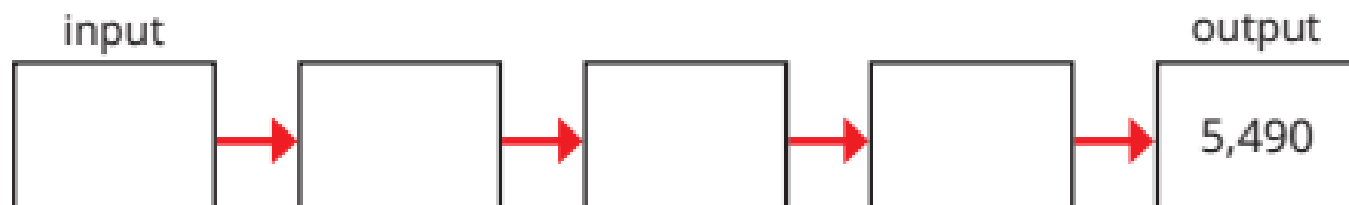
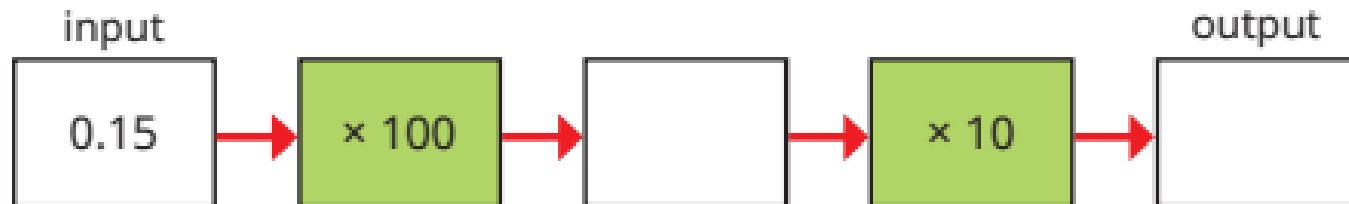
# Guided

Have a think



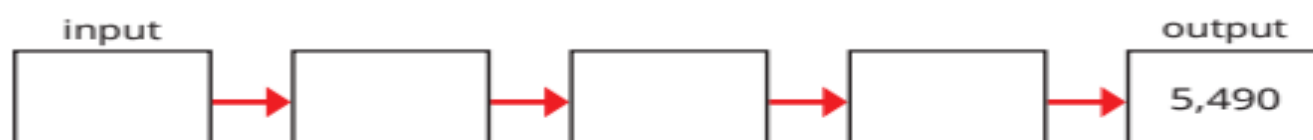
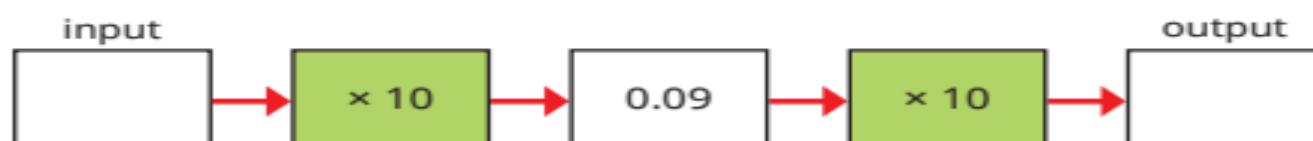
# Hexagon and Octagons- complete

Fill in the missing numbers.





Fill in the missing numbers.



15, 150

0.009, 0.9

$\times 10$ , 3,650

multiple possible answers, e.g.  
0.549,  $\times 10$ , 5.49,  $\times 1,000$

Tiny is multiplying numbers  
by 100



When you  
multiply by 100, you just  
add two zeros to the end  
of the number.



Give an example of a calculation where  
Tiny's method works.

Give an example of a calculation where  
Tiny's method does **not** work.

What is a better way to explain  
how to multiply by 100?

Talk about it with a partner.



Tiny is multiplying numbers by 100



When you multiply by 100, you just add two zeros to the end of the number.



Give an example of a calculation where Tiny's method works.

Give an example of a calculation where Tiny's method does **not** work.

What is a better way to explain how to multiply by 100?



Talk about it with a partner.

Tiny is multiplying numbers by 100



When you multiply by 100, you just add two zeros to the end of the number.



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Give an example of a calculation where Tiny's method does **not** work.

What is a better way to explain how to multiply by 100?



Talk about it with a partner.

Tiny is multiplying numbers by 100



When you multiply by 100, you just add two zeros to the end of the number.



Give an example of a calculation where Tiny's method works.

Give an example of a calculation where Tiny's method does **not** work.

What is a better way to explain how to multiply by 100?

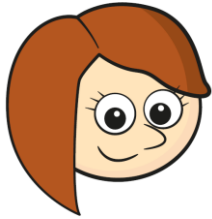


Talk about it with a partner.

Tues

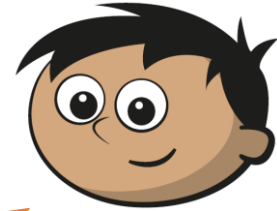
$$4.2 \times 200$$

Have a think



Rosie

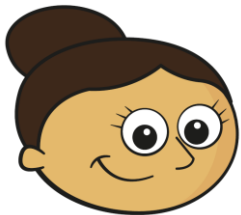
You could do  
 $4.2 \times 100 \times 2$



Amir

I disagree, there are two  
hundreds so it would be  
 $4.2 \times 100 \times 100$

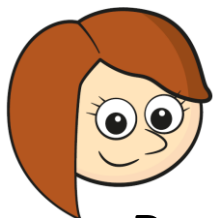
Who do you agree with?



Dora

I think it'd be  
 $4.2 \times 2 \times 100$

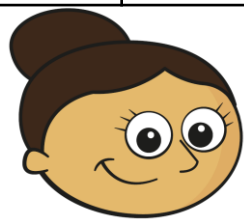
|      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|
| 100  | 200  | 300  | 400  | 500  | 600  | 700  | 800  | 900  |
| 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   |
| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
| 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  |
| 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |



Rosie

$$4.2 \times 100 \times 2 = 840$$

|      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|
| 100  | 200  | 300  | 400  | 500  | 600  | 700  | 800  | 900  |
| 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   |
| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
| 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  |
| 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |



Dora

$$4.2 \times 100 \times 2 = 840$$

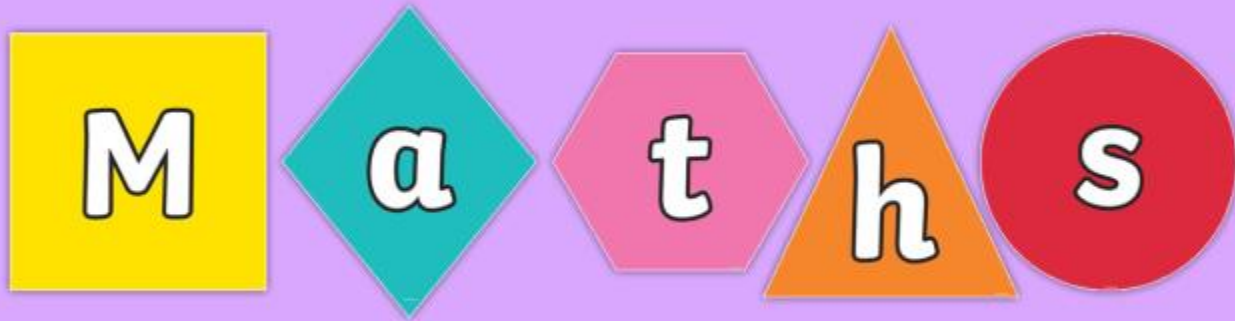
$$4.2 \times 2 \times 100 = 840$$

|        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 10,000 | 20,000 | 30,000 | 40,000 | 50,000 | 60,000 | 70,000 | 80,000 | 90,000 |
| 1,000  | 2,000  | 3,000  | 4,000  | 5,000  | 6,000  | 7,000  | 8,000  | 9,000  |
| 100    | 200    | 300    | 400    | 500    | 600    | 700    | 800    | 900    |
| 10     | 20     | 30     | 40     | 50     | 60     | 70     | 80     | 90     |
| 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      |
| 0.1    | 0.2    | 0.3    | 0.4    | 0.5    | 0.6    | 0.7    | 0.8    | 0.9    |
| 0.01   | 0.02   | 0.03   | 0.04   | 0.05   | 0.06   | 0.07   | 0.08   | 0.09   |

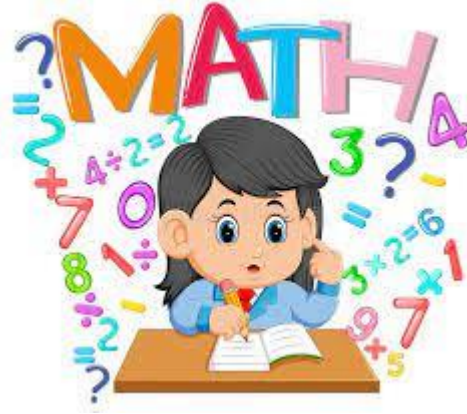
$$4.2 \times 100 \times 100 = 42,000$$

# Tues-Maths meeting

## Multiplication revision x 7



<https://www.youtube.com/watch?v=QgHInmo3DRI&list=PLU00eSrkogUIR9VQzGPfRT4CUTCP9OO9&index=6>



X 7 practice...  
How quickly can  
you write  
them on your whiteboard?

# Jog and chant!



## Test a friend!

# Complete the challenge

## Exercise 18

$7 \times 5 = \square$

$63 \div 7 = \square$

$6 \times 7 = \square$

$84 \div 7 = \square$

$7 \times 1 = \square$

$28 \div 4 = \square$

$7 \times 7 = \square$

$1 \times 7 = \square$

$70 \div 7 = \square$

$2 \times 7 = \square$

$9 \times 7 = \square$

$4 \times 7 = \square$

$14 \div 7 = \square$

$2 \times 7 = \square$

$8 \times 7 = \square$

$7 \times 7 = \square$

$5 \times 7 = \square$

$63 \div 7 = \square$

$7 \times 8 = \square$

$42 \div 7 = \square$

**Exercise 18**

$7 \times 5 =$

$63 \div 7 =$

$6 \times 7 =$

$84 \div 7 =$

$7 \times 1 =$

$28 \div 4 =$

$7 \times 7 =$

$1 \times 7 =$

$70 \div 7 =$

$2 \times 7 =$

$9 \times 7 =$

$4 \times 7 =$

$14 \div 7 =$

$2 \times 7 =$

$8 \times 7 =$

$7 \times 7 =$

$5 \times 7 =$

$63 \div 7 =$

$7 \times 8 =$

$42 \div 7 =$

**Exercise 18**

$7 \times 5 =$

$63 \div 7 =$

$6 \times 7 =$

$84 \div 7 =$

$7 \times 1 =$

$28 \div 4 =$

$7 \times 7 =$

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$4 \times 7 =$

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$2 \times 7 =$

$8 \times 7 =$

$7 \times 7 =$

$5 \times 7 =$

$63 \div 7 =$

$7 \times 8 =$

$42 \div 7 =$

**Exercise 18**

$7 \times 5 =$

$63 \div 7 =$

$6 \times 7 =$

$84 \div 7 =$

$7 \times 1 =$

$28 \div 4 =$

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$2 \times 7 =$

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$2 \times 7 =$

$8 \times 7 =$

$7 \times 7 =$

$5 \times 7 =$

$63 \div 7 =$

$7 \times 8 =$

$42 \div 7 =$

**Exercise 18**

$7 \times 5 =$

$63 \div 7 =$

$6 \times 7 =$

$84 \div 7 =$

$7 \times 1 =$

$28 \div 4 =$

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$2 \times 7 =$

$9 \times 7 =$

$4 \times 7 =$

$14 \div 7 =$

$2 \times 7 =$

$8 \times 7 =$

$7 \times 7 =$

$5 \times 7 =$

$63 \div 7 =$

$7 \times 8 =$

$42 \div 7 =$

Tues

Weds 18.1.23

LO: To divide decimals by  
10, 100, 1000

True or False ?

Multiply by 10, 100 and 1,000

$$\frac{1}{2} \times 10 = 5$$

**Do now- books-  
Prove it!**



shutterstock.com - 15251652



twinkl.com

$$\frac{1}{2} \times 10 = 5$$

**Do now- books- Prove it!**

$$\frac{1}{2} \times 10 = 5$$

**Do now- books- Prove it!**

$$\frac{1}{2} \times 10 = 5$$

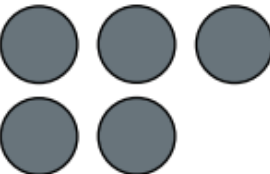
**Do now- books- Prove it!**

$$\frac{1}{2} \times 10 = 5$$

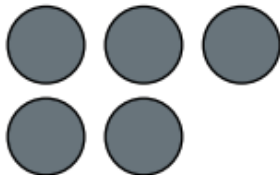
**Do now- books- Prove it!**

## True

$$\frac{1}{2} \times 10 = 0.5 \times 10 = 5$$

| Tens | Ones | Tenths                                                                              | Hundredths |
|------|------|-------------------------------------------------------------------------------------|------------|
|      |      |  |            |

↓ ×10

| Tens | Ones                                                                                | Tenths | Hundredths |
|------|-------------------------------------------------------------------------------------|--------|------------|
|      |  |        |            |

5

mastery  $\longleftrightarrow$  fluency  $\longleftrightarrow$  application

Term Spring 1 Week beginning 10/1/23

Block Decimals

Key vocabulary tenths hundredths  
decimal point thousandths whole number  
rounding place value digit column

|                                     | B | W | S |
|-------------------------------------|---|---|---|
| Place value within 1                |   |   |   |
| Place value - integers and decimals |   |   |   |
| Round decimals                      |   |   |   |
| Add and subtract decimals           |   |   |   |
| Multiply by 10, 100 and 1,000       |   |   |   |
| Divide by 10, 100 and 1,000         |   |   |   |
| Multiply decimals by integers       |   |   |   |
| Divide decimals by integers         |   |   |   |

Stem sentences

- There are ones, tenths, hundredths and thousandths
- The number is
- There are in
- is 10/100/1,000 times the size of
- is one-tenth/hundredth/thousandth the size of
- The previous/next multiple of is
- is closer to than
- So rounded to the nearest is

# Crucial vocabulary

**tenths** – the first number to the right of the decimal point

**Hundredths:** The second decimal place to the right of the decimal point; 1 of 100 equal parts. Example: .8 7

**Thousandths:** The third decimal place to the right of the decimal point; 1 of 100 equal parts. Example: .6 4 3

**Decimal Point:** A period separating the ones and tenths in a decimal number.  
Example: **7.4**

**Whole Numbers:** The set of all counting numbers and 0. Example: **296**

columns  
divide  
place value

## Crucial vocabulary

**tenths** – the first number to the right of the decimal point

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columns  
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## Crucial vocabulary

**tenths** – the first number to the right of the decimal point

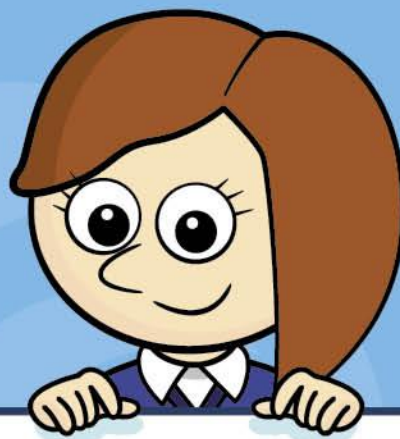
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**Decimal Point:** A period separating the ones and tenths in a decimal number.  
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columns  
divide  
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**Whole Numbers:** The set of all counting numbers and 0. Example: **296**

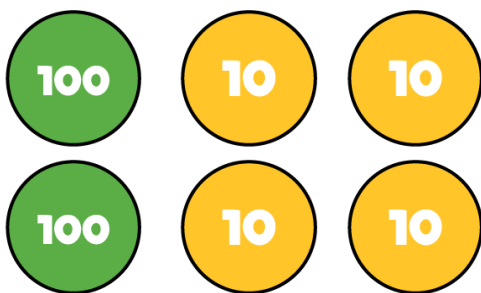


# Get ready

Here is your starter.

1)  $42,000 \div 10 =$   
 $42,000 \div 100 =$   
 $42,000 \div 1,000 =$

Talk partner-  
jot on  
whiteboard

2)   $\div 10 =$

3) 

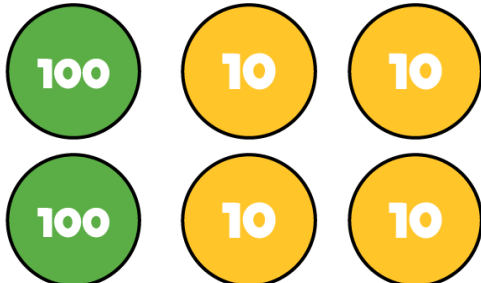
|    |  |  |  |  |   |  |  |  |  |
|----|--|--|--|--|---|--|--|--|--|
| 80 |  |  |  |  |   |  |  |  |  |
|    |  |  |  |  | ? |  |  |  |  |

$$1) 42,000 \div 10 = 4,200$$

$$42,000 \div 100 = 420$$

$$42,000 \div 1,000 = 42$$

2)

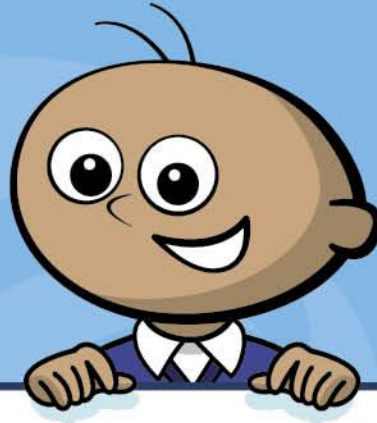


$$\div 10 = 24$$

240

3)

|    |  |  |  |  |   |  |  |  |  |
|----|--|--|--|--|---|--|--|--|--|
| 80 |  |  |  |  |   |  |  |  |  |
|    |  |  |  |  | 8 |  |  |  |  |



# Let's learn

Get ready for today's  
new learning.

|          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 100      | 200      | 300      | 400      | 500      | 600      | 700      | 800      | 900      |
| 10       | 20       | 30       | 40       | 50       | 60       | 70       | 80       | 90       |
| 1<br>0.1 | 2<br>0.2 | 3<br>0.3 | 4<br>0.4 | 5<br>0.5 | 6<br>0.6 | 7<br>0.7 | 8<br>0.8 | 9<br>0.9 |
|          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |

### Gattegno Chart

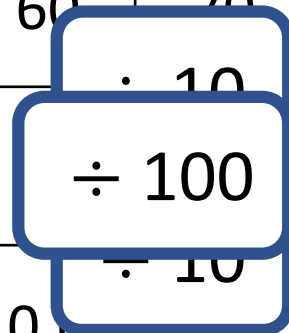
$$0.3 \times 10 = 3$$

3 is 10 times the size of 0.3

$$3 \div 10 = 0.3$$

0.3 is one-tenth the size of 3

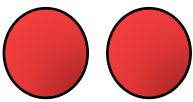
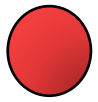
|      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|
| 100  | 200  | 300  | 400  | 500  | 600  | 700  | 800  | 900  |
| 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   |
| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
| 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  |
| 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |



$$80 \div 10 \div 10 = 0.8$$

$$80 \div 100 = 0.8 \quad 0.8 \text{ is one-hundredth the size of } 80$$

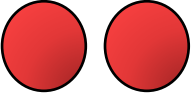
$$210 \div 10 = 21$$

| Th | H                                                                                 | T                                                                                 | O | Tth | Hth |
|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---|-----|-----|
|    |  |  |   |     |     |
|    | 2                                                                                 | 1                                                                                 | 0 |     |     |

When the number is divided by 10 the counters/digits move 1 place to the right.



$$210 \div 100 = 2.1$$

| Th | H                                                                                 | T                                                                                 | O | Tth | Hth |
|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---|-----|-----|
|    |  |  |   |     |     |
|    | 2                                                                                 | 1                                                                                 | 0 |     |     |

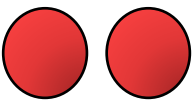
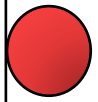
When the number is divided by 100 the counters/digits move 2 places to the right.



$$210 \div 1,000 = 0.21$$

Have a think



| Th | H                                                                                 | T                                                                                 | O | Tth | Hth |
|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---|-----|-----|
|    |  |  |   |     |     |
|    | 2                                                                                 | 1                                                                                 | 0 |     |     |

When the number is divided by 1,000 the counters/digits move 3 places to the right.



**1**

Complete the calculations and sentences.

Use counters to help you.

| Th | H | T        | O | Tth | Hth |
|----|---|----------|---|-----|-----|
|    | ● | ●●<br>●● |   |     |     |

a)  $140 \div 10 =$

When a number is divided by 10, the counters move  place to the right.

b)  $140 \div 100 =$

When a number is divided by 100, the counters move  places to the right.

c)  $140 \div 1,000 =$

When a number is divided by 1,000, the counters move  places to the right.

1 Complete the calculations and sentences.

Use counters to help you.



| Th | H | T    | O | Tth | Hth |
|----|---|------|---|-----|-----|
|    | ● | ●●●● |   | ●   |     |

a)  $140 \div 10 =$

When a number is divided by 10, the counters move  place to the right.

b)  $140 \div 100 =$

When a number is divided by 100, the counters move  places to the right.

c)  $140 \div 1,000 =$

When a number is divided by 1,000, the counters move  places to the right.

1 Complete the calculations and sentences.

Use counters to help you.



| Th | H | T    | O | Tth | Hth |
|----|---|------|---|-----|-----|
|    | ● | ●●●● |   | ●   |     |

a)  $140 \div 10 =$

When a number is divided by 10, the counters move  place to the right.

b)  $140 \div 100 =$

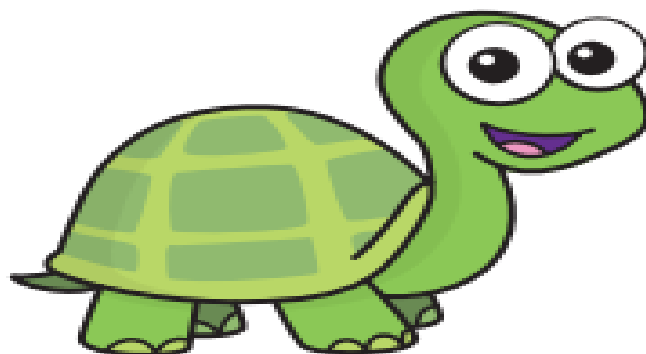
When a number is divided by 100, the counters move  places to the right.

c)  $140 \div 1,000 =$

When a number is divided by 1,000, the counters move  places to the right.

Tiny is dividing numbers by 10,  
100 and 1,000

When you  
divide by 10, 100 or  
1,000, you just remove  
the zeros.



Do you agree with Tiny?  
Explain your answer.



Tiny is dividing numbers by 10, 100 and 1,000

When you divide by 10, 100 or 1,000, you just remove the zeros.



Do you agree with Tiny?  
Explain your answer.

Tiny is dividing numbers by 10, 100 and 1,000

When you divide by 10, 100 or 1,000, you just remove the zeros.



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When you divide by 10, 100 or 1,000, you just remove the zeros.



Do you agree with Tiny?  
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Explain your answer.

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When you divide by 10, 100 or 1,000, you just remove the zeros.



Do you agree with Tiny?  
Explain your answer.



Your turn

# Squares and Triangles

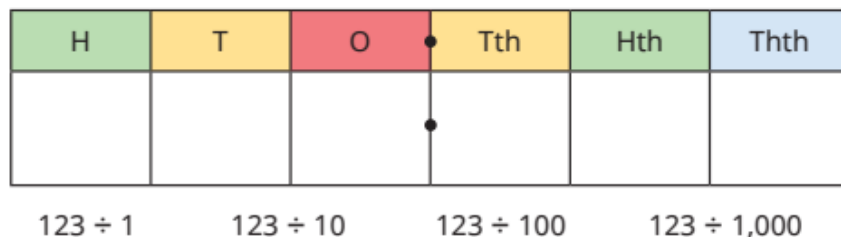
3

a) Draw counters to represent the answers to the calculations.

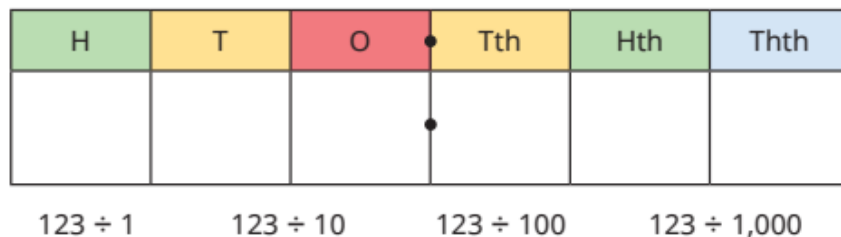
| H            | T             | O              | Tth              | Hth | Thth |
|--------------|---------------|----------------|------------------|-----|------|
|              |               |                |                  |     |      |
| $123 \div 1$ | $123 \div 10$ | $123 \div 100$ | $123 \div 1,000$ |     |      |

Weds  
Triangle  
Sq

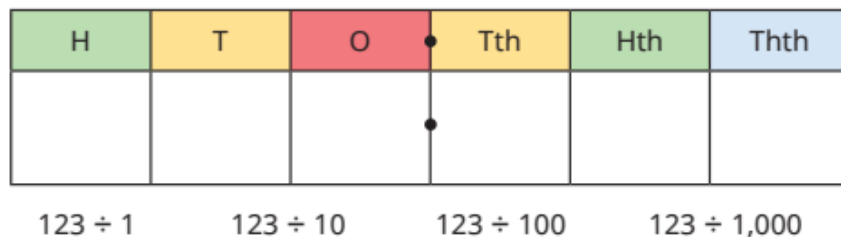
3 a) Draw counters to represent the answers to the calculations.



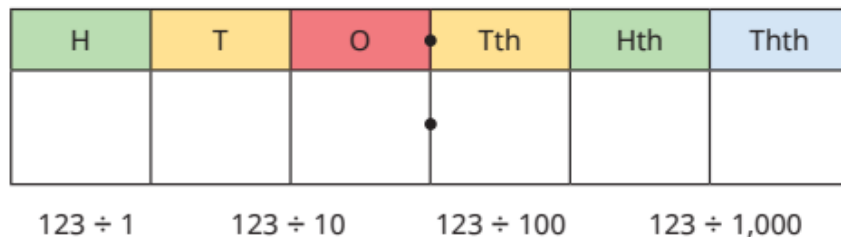
3 a) Draw counters to represent the answers to the calculations.



3 a) Draw counters to represent the answers to the calculations.



3 a) Draw counters to represent the answers to the calculations.



# Squares and Triangles extension

4

Complete the calculations.

a)  $16 \div 10 =$

b)  $43.4 \div 100 =$

c)  $614 \div 1,000 =$

d)  $506 \div 100 =$

Use place value card and counters to help

4

Complete the calculations.

a)  $16 \div 10 =$

b)  $43.4 \div 100 =$

c)  $614 \div 1,000 =$

d)  $506 \div 100 =$

Use place value card and counters to help

4

Complete the calculations.

a)  $16 \div 10 =$

b)  $43.4 \div 100 =$

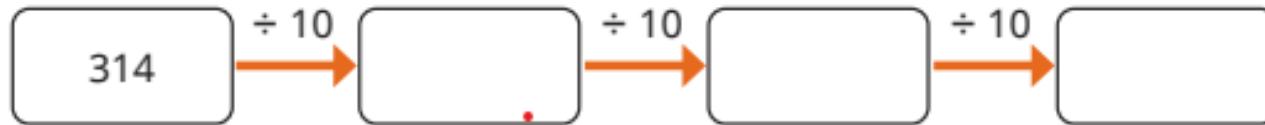
c)  $614 \div 1,000 =$

d)  $506 \div 100 =$

Use place value card and counters to help

# Squares and Triangles extension

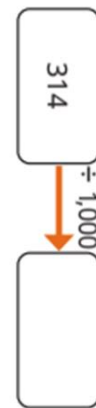
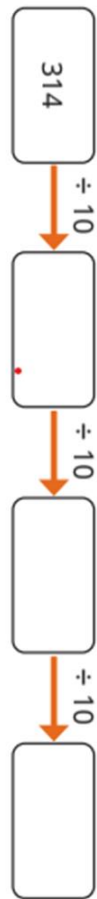
5 Complete the diagrams.



What do you notice? Why does this happen?

5

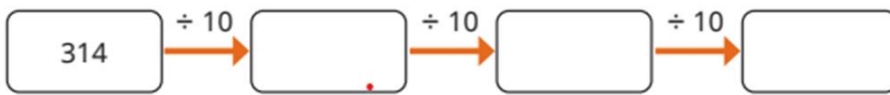
Complete the diagrams.



What do you notice? Why does this happen?

5

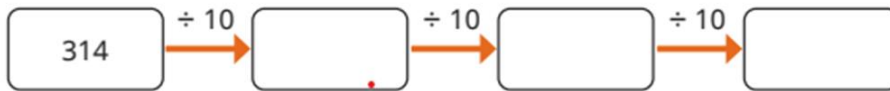
Complete the diagrams.



What do you notice? Why does this happen?

5

Complete the diagrams.



What do you notice? Why does this happen?

Weds

## Hexagon and Octagons- copy and complete

4

Complete the calculations.

a)  $16 \div 10 =$

b)  $43.4 \div 100 =$

c)  $614 \div 1,000 =$

d)  $506 \div 100 =$

e)  $332 \div$    $= 0.332$

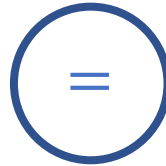
f)  $2.4 \div 100 =$

g)  $5.09 =$    $\div 10$

h)   $= 20.7 \div 100$

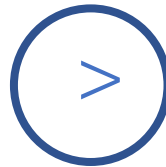
Use  $>$ ,  $<$  or  $=$  to complete the sentences.

$$15.62 \div 10 \div 10 \div 10$$
$$15.62 \div 1,000$$



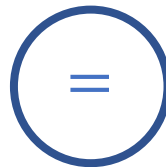
$$15.62 \div 1,000$$

$$81 \div 100$$



$$81 \div 100 \div 10$$
$$81 \div 1,000$$

$$4.6 \div 10$$
$$0.46$$



$$46 \div 100$$
$$0.46$$

Have a think



# Octagon and Hex Guided

6 Write  $>$ ,  $<$  or  $=$  to compare the divisions.

$$5,400 \div 10 \div 10 \div 10 \quad \bigcirc \quad 5,400 \div 1,000$$

$$60 \div 100 \div 10 \quad \bigcirc \quad 600 \div 100$$

$$5.7 \div 10 \quad \bigcirc \quad 57 \div 100$$

$$5,601 \div 1,000 \quad \bigcirc \quad 5.601 \div 10$$

## Octagon and Hexagons

6 Write  $>$ ,  $<$  or  $=$  to compare the divisions.

$$5,400 \div 10 \div 10 \div 10 \quad \bigcirc \quad 5,400 \div 1,000$$

$$60 \div 100 \div 10 \quad \bigcirc \quad 600 \div 100$$

$$5.7 \div 10 \quad \bigcirc \quad 57 \div 100$$

$$5,601 \div 1,000 \quad \bigcirc \quad 5.601 \div 10$$

6 Write  $>$ ,  $<$  or  $=$  to compare the divisions.

$$5,400 \div 10 \div 10 \div 10 \quad \bigcirc \quad 5,400 \div 1,000$$

$$60 \div 100 \div 10 \quad \bigcirc \quad 600 \div 100$$

$$5.7 \div 10 \quad \bigcirc \quad 57 \div 100$$

$$5,601 \div 1,000 \quad \bigcirc \quad 5.601 \div 10$$

6 Write  $>$ ,  $<$  or  $=$  to compare the divisions.

$$5,400 \div 10 \div 10 \div 10 \quad \bigcirc \quad 5,400 \div 1,000$$

$$60 \div 100 \div 10 \quad \bigcirc \quad 600 \div 100$$

$$5.7 \div 10 \quad \bigcirc \quad 57 \div 100$$

$$5,601 \div 1,000 \quad \bigcirc \quad 5.601 \div 10$$

6 Write  $>$ ,  $<$  or  $=$  to compare the divisions.

$$5,400 \div 10 \div 10 \div 10 \quad \bigcirc \quad 5,400 \div 1,000$$

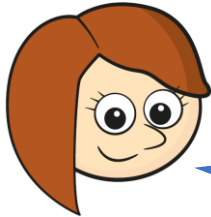
$$60 \div 100 \div 10 \quad \bigcirc \quad 600 \div 100$$

$$5.7 \div 10 \quad \bigcirc \quad 57 \div 100$$

$$5,601 \div 1,000 \quad \bigcirc \quad 5.601 \div 10$$

$$\square \div 20 = 2.04$$

Have a think



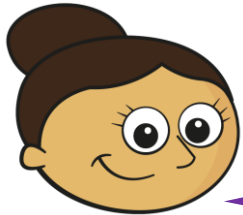
Rosie

We could use the inverse and do  
 $2.04 \times 20$



Amir

That's a great idea Rosie!  
We could do  $2.04 \times 2 \times 10$



Dora

Let's use a Gattegno chart to help us!

# How would you solve this?

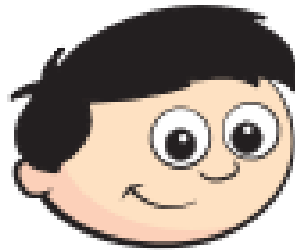
$$\boxed{\phantom{00}} \div 20 = 2.04$$

|      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|
| 100  | 200  | 300  | 400  | 500  | 600  | 700  | 800  | 900  |
| 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   |
| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
| 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  |
| 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |

$$2.04 \times 2 \times 10 = 40.8$$

# Extension

7 Dexter is solving the calculation  $5,400 \div 100$



I think the  
answer is 54.00

Is Dexter correct?

Explain your reasoning.

7 Dexter is solving the calculation  $5,400 \div 100$



I think the answer is 54.00

Is Dexter correct?

Explain your reasoning.

7 Dexter is solving the calculation  $5,400 \div 100$



I think the answer is 54.00

Is Dexter correct?

Explain your reasoning.

7 Dexter is solving the calculation  $5,400 \div 100$



I think the answer is 54.00

Is Dexter correct?

Explain your reasoning.

7 Dexter is solving the calculation  $5,400 \div 100$



I think the answer is 54.00

Is Dexter correct?

Explain your reasoning.

7 Dexter is solving the calculation  $5,400 \div 100$



I think the answer is 54.00

Is Dexter correct?

Explain your reasoning.

Weds- Hex  
/Oct

2

43

 $\div 10$ 

4.3

 $\div 10$ 

0.43

3

a)

| H | T  | O   | Tth | Hth | Thth |
|---|----|-----|-----|-----|------|
| ● | ●● | ●●● |     |     |      |

| H | T  | O   | Tth | Hth | Thth |
|---|----|-----|-----|-----|------|
| ● | ●● | ●●● | ●   |     |      |

| H | T  | O   | Tth | Hth | Thth |
|---|----|-----|-----|-----|------|
| ● | ●● | ●●● | ●●  |     |      |

| H | T  | O   | Tth | Hth | Thth |
|---|----|-----|-----|-----|------|
| ● | ●● | ●●● | ●●● |     |      |

b)  $123 \div 1 = 123$  $123 \div 10 = 12.3$  $123 \div 100 = 1.23$  $123 \div 1,000 = 0.123$ 

The digits stay the same and move one more place to the right with each division.

4

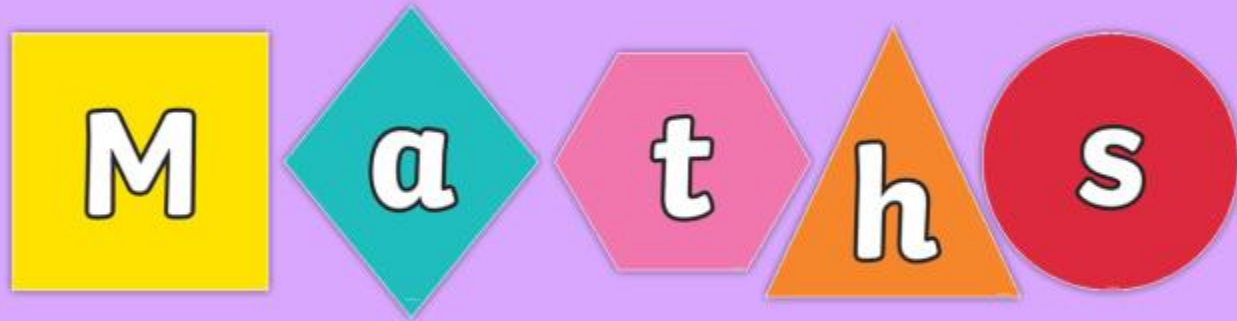
a)  $16 \div 10 = 1.6$ b)  $43.4 \div 100 = 0.434$ c)  $614 \div 1,000 = 0.614$ d)  $506 \div 100 = 5.06$ e)  $332 \div 1,000 = 0.332$ f)  $2.4 \div 100 = 0.024$ g)  $5.09 = 50.9 \div 10$ h)  $0.207 = 20.7 \div 100$

**Y6 – Spring – Block 3 – Step 6 – Divide by 10, 100 and 1,000 Answers (continued)**

| Question | Answer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5        | <div data-bbox="459 258 1257 329"> <math>314 \div 10 \rightarrow 31.4 \div 10 \rightarrow 3.14 \div 10 \rightarrow 0.314</math> </div> <div data-bbox="459 396 1035 468"> <math>314 \div 100 \rightarrow 3.14 \div 10 \rightarrow 0.314</math> </div> <div data-bbox="459 535 817 606"> <math>314 \div 1,000 \rightarrow 0.314</math> </div> <p data-bbox="459 629 1321 736">                     The final answers are all the same.<br/> <math>\div 10 \div 10 \div 10</math> is the same as <math>\div 100 \div 10</math> is the same as <math>\div 1,000</math><br/> <math>10 \div 10 \div 10 = \div 100 \div 10 = \div 1,000</math> </p> |
| 6        | $=$<br>$<$<br>$=$<br>$<$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 7        | Yes<br>Dexter has moved the digits two places to the right. 54.00 is the same as 54                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 8        | No<br>Tiny has moved the 3 three places to the right, instead of moving both the 3 and the 6 two places to the right.<br>The correct answer is 30.06                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

# Weds-Maths meeting

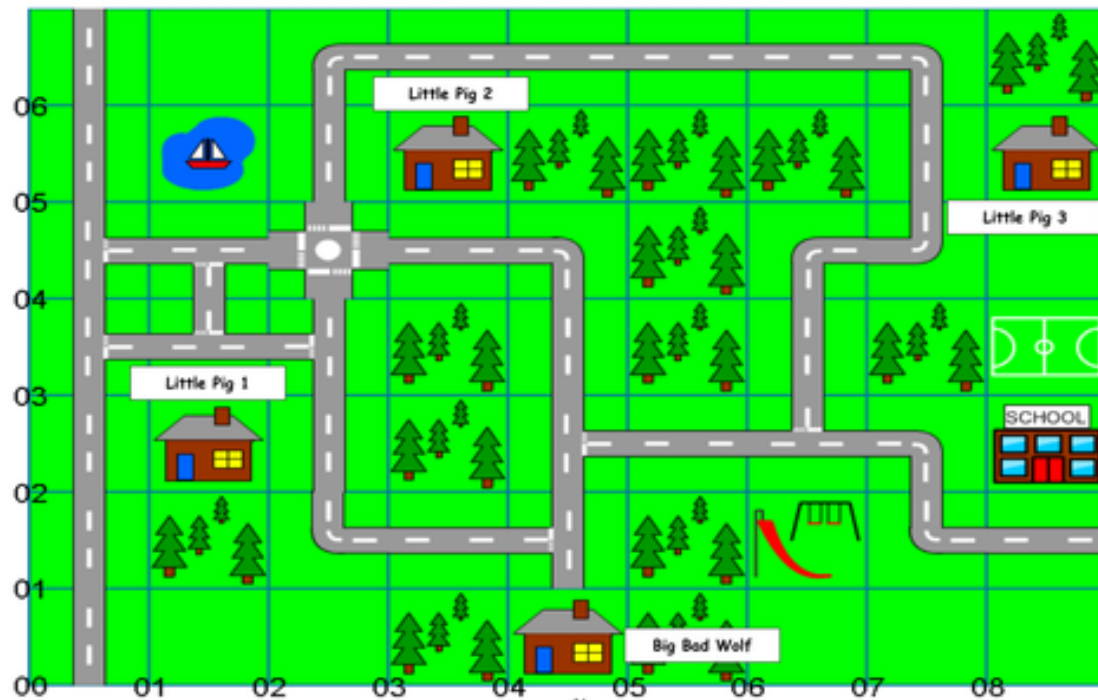
## Co-ordinates- pre-teach



# Position and direction

## Olympic Coordinates

LO: Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)



## Crucial Vocabulary

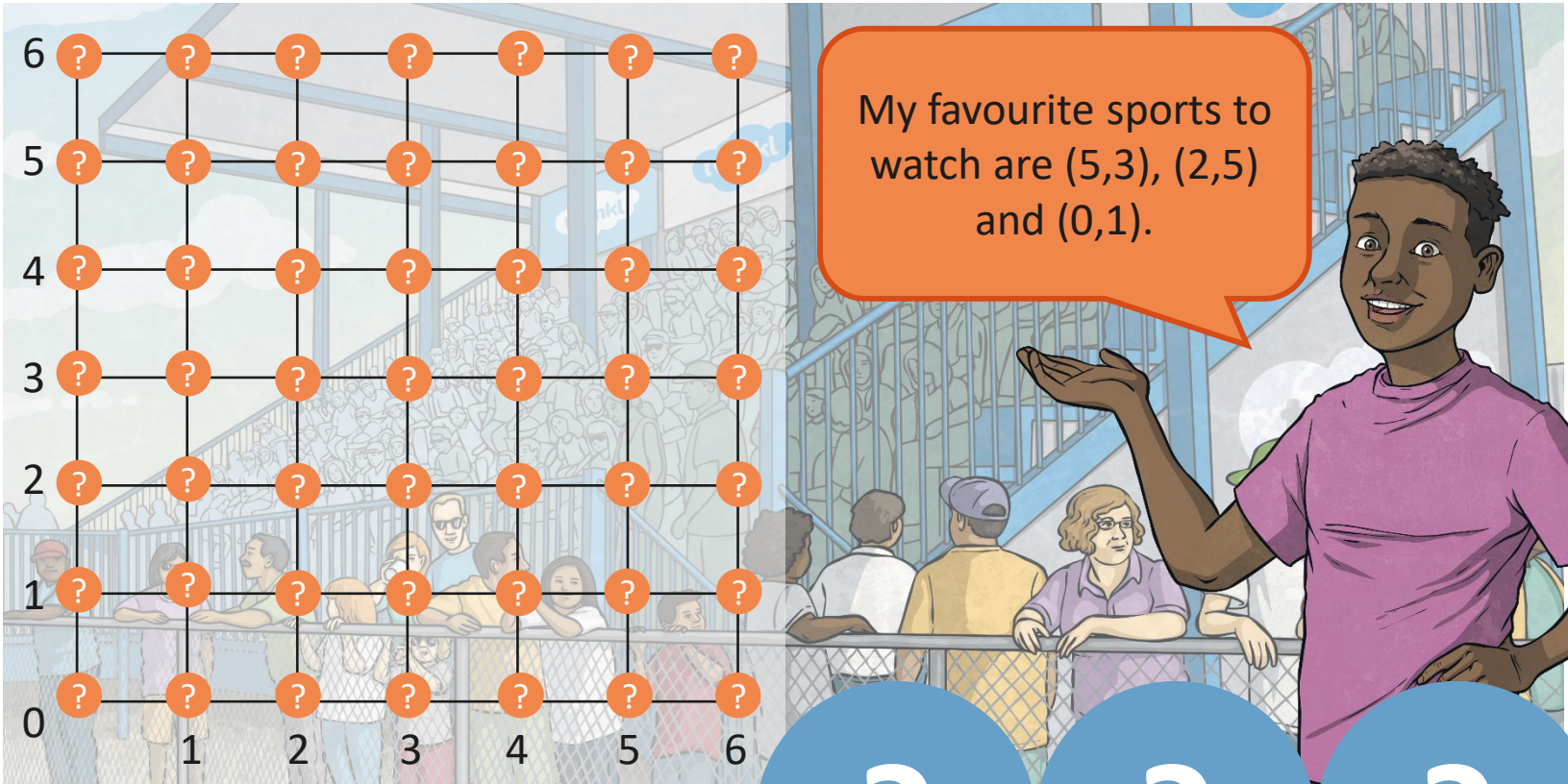
**Coordinates** - A group of numbers used to indicate the position of a point, line or plane

**Horizontal** - Parallel to the plane of the horizon; at a right angle to the vertical

**Vertical** - An upright line where the top is directly above the bottom (vertices)

**Plot** - Mark a position on a chart or graph

# Olympic Sports Coordinates



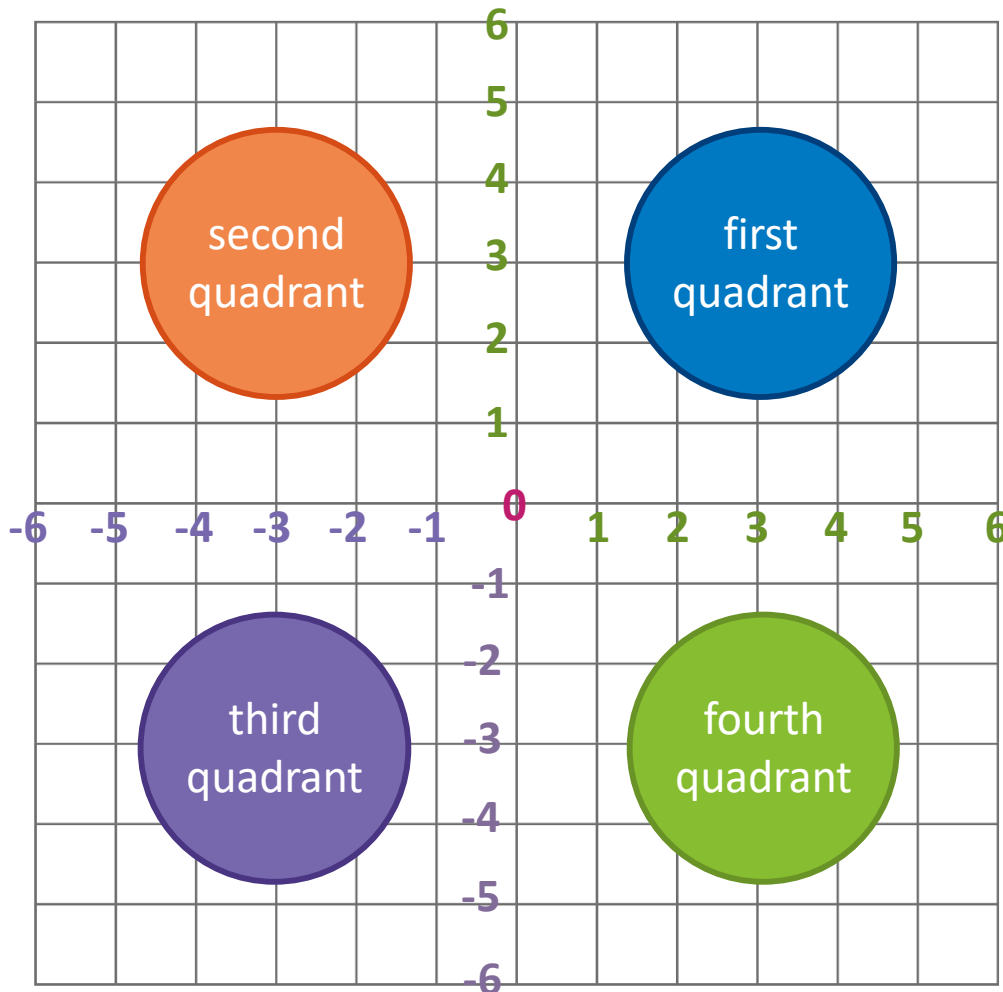
Click the correct coordinates to find Joe's favourite Olympic sports:

?

?

?

# The Four Quadrants



In the first activity, you were identifying coordinates in the **first quadrant**, using the **horizontal x-axis** and **vertical y-axis**.

The point where the horizontal and vertical axes intersect is at **(0,0)**. This is called the **origin**.

When the x-axis and y-axis number lines are extended beyond the origin, into **negative numbers**, a much larger coordinate grid is created, made of four areas called **quadrants**.

# The Four Quadrants



Positions in the **second quadrant** always have a **negative x-axis** coordinate and a **positive y-axis** coordinate.

second quadrant

Positions in the **first quadrant** always have a **positive x-axis** coordinate and a **positive y-axis** coordinate.

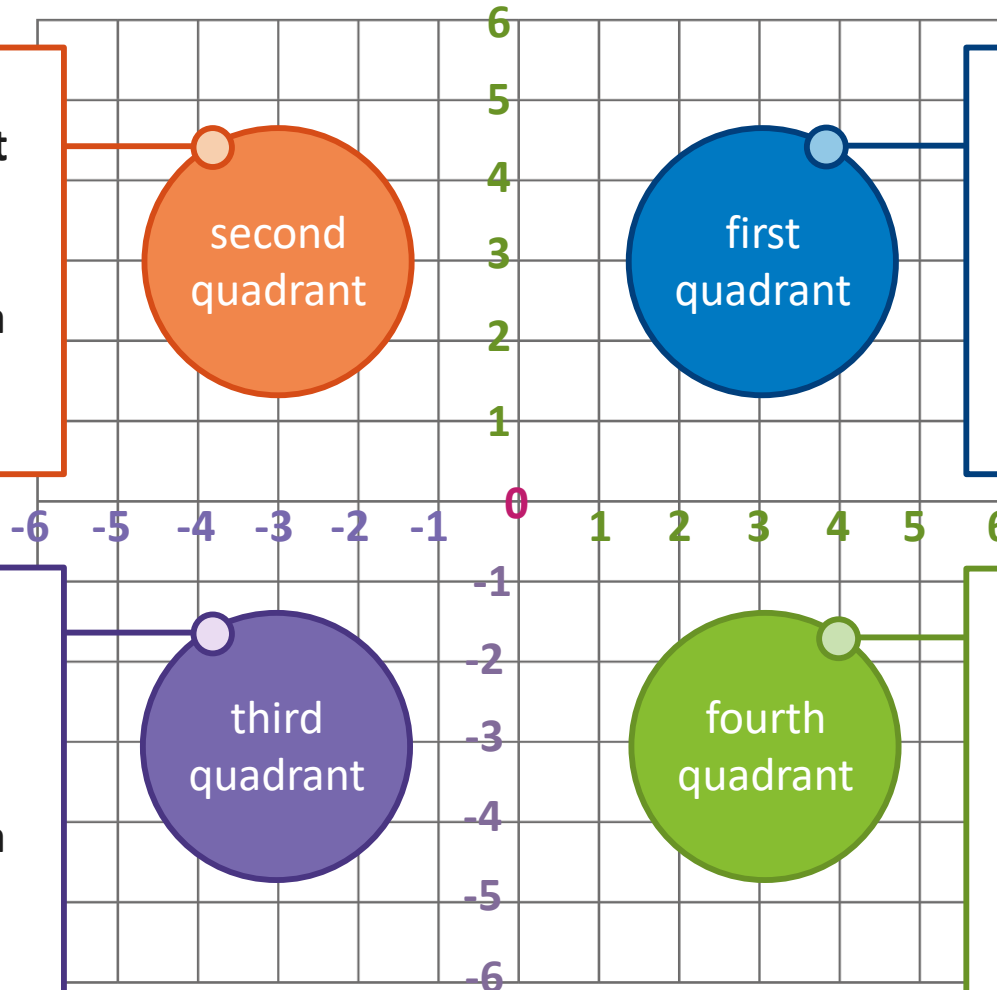
first quadrant

Positions in the **third quadrant** always have a **negative x-axis** coordinate and a **negative y-axis** coordinate.

third quadrant

Positions in the **fourth quadrant** always have a **positive x-axis** coordinate and a **negative y-axis** coordinate.

fourth quadrant



# The Four Quadrants



Which quadrant should each Olympic sport be positioned in?

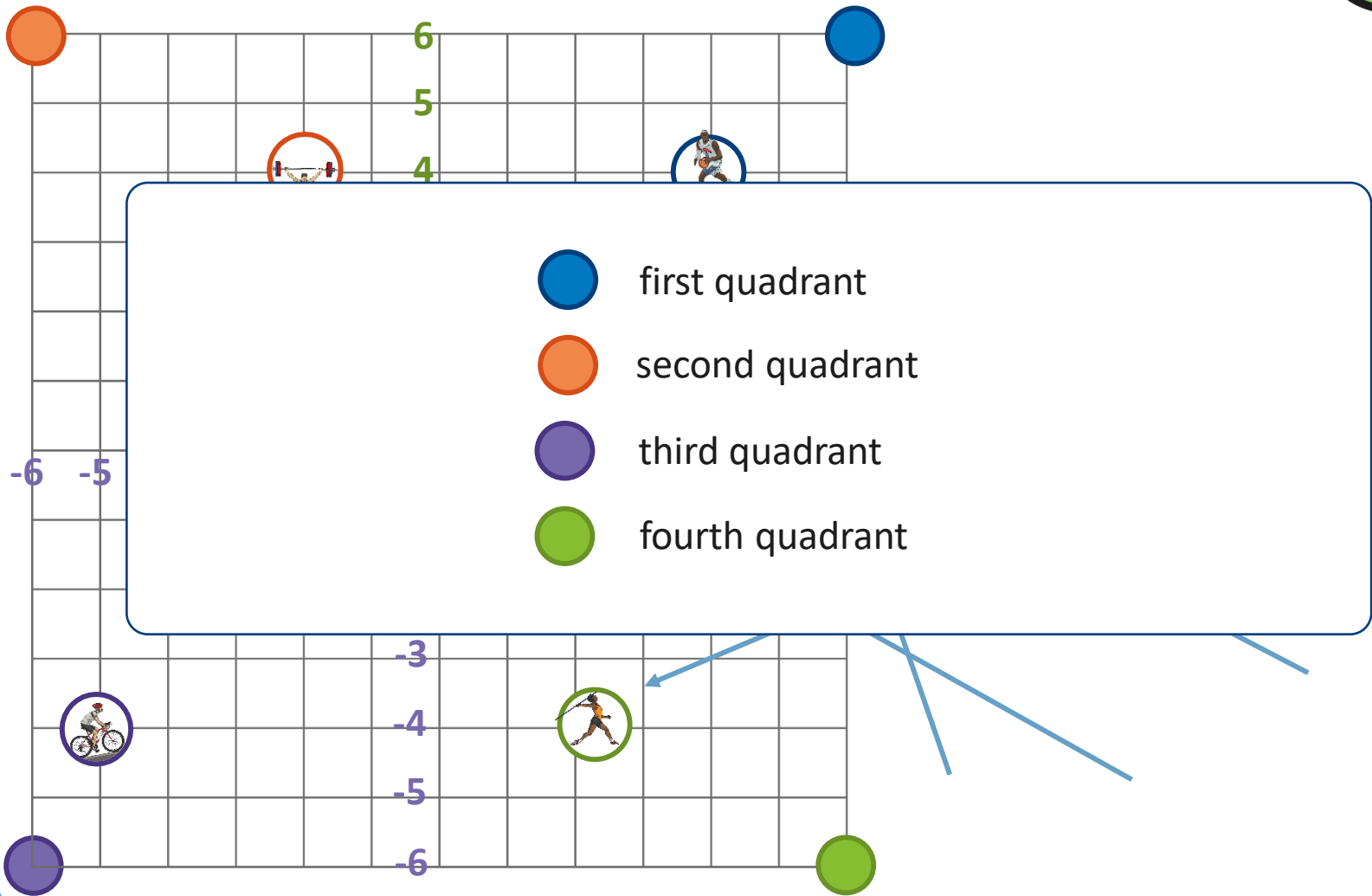
-  first quadrant
-  second quadrant
-  third quadrant
-  fourth quadrant



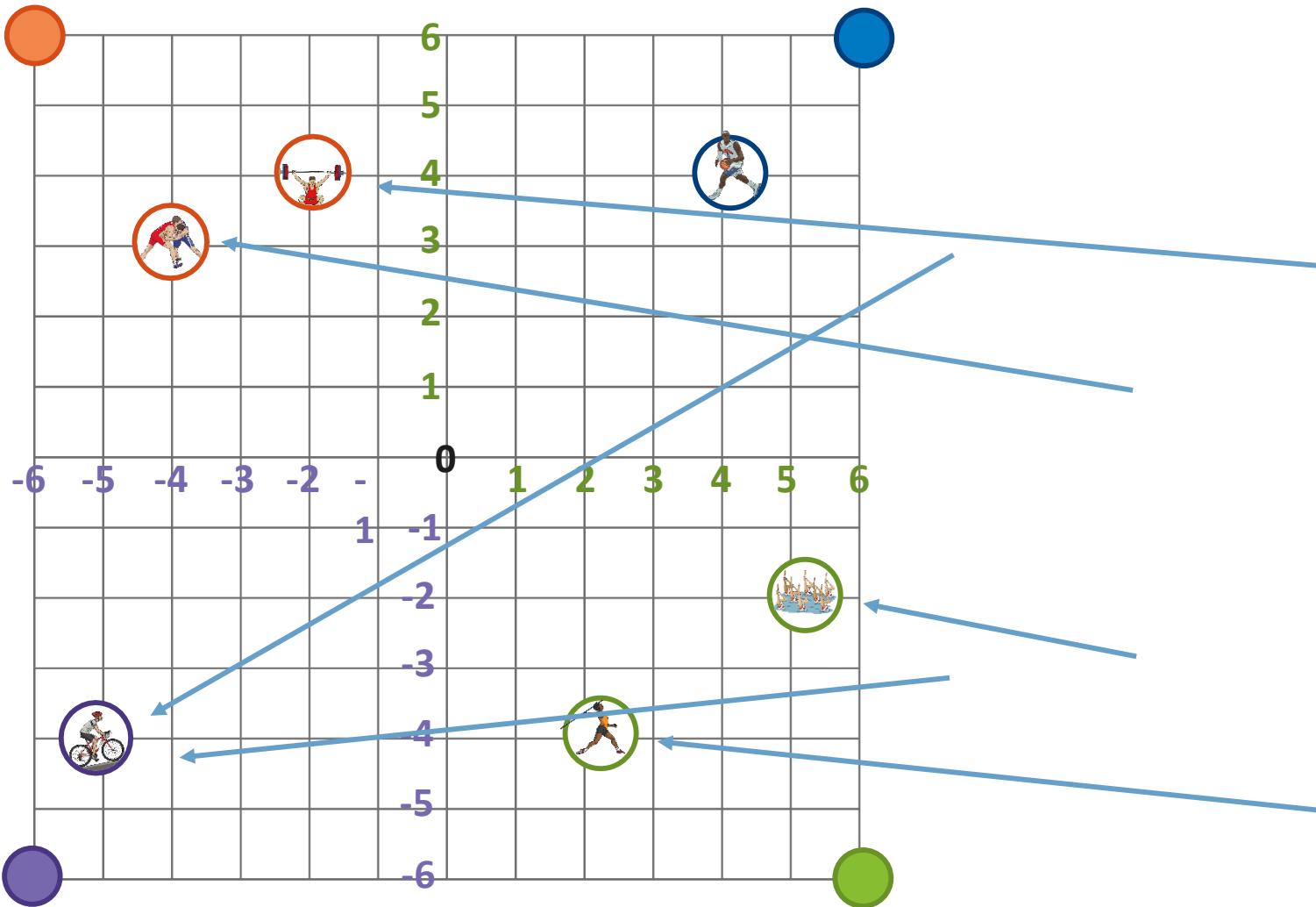
$(-4, -1)$



# Describing Positions



# Describing Positions



# 2017 SATs

17

The vertices of a quadrilateral have these coordinates.

$(1, 5)$

$(5, 4)$

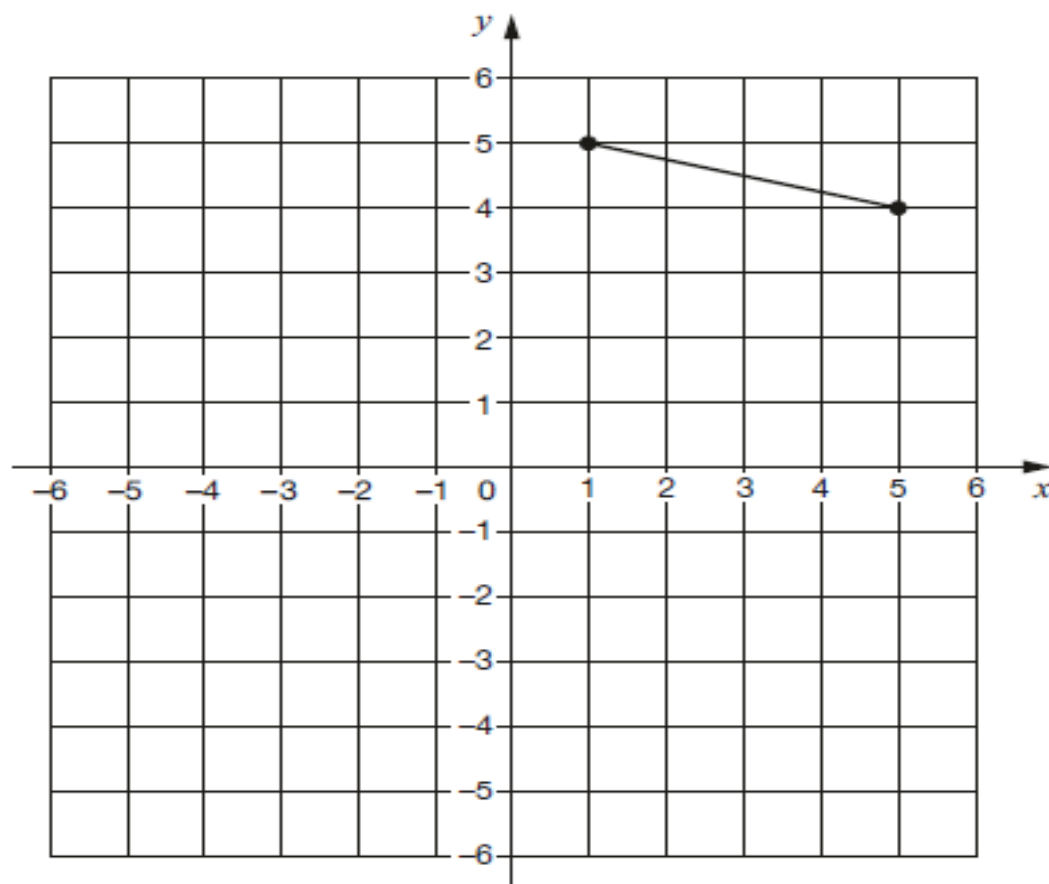
$(1, -3)$

$(-3, 4)$

One side of the quadrilateral has been drawn on the grid.

Complete the quadrilateral.

Use a ruler.



Thurs 19.1.23

L0: To multiply decimals by integers

1) 3 tenths + 3 tenths + 3 tenths =  
 $0.3 + 0.3 + 0.3 =$   
 $0.3 \times 3 =$

2) 3 hundredths + 3 hundredths + 3 hundredths =  
 $0.03 + 0.03 + 0.03 =$   
 $0.03 \times 3 =$

3) 4 tenths + 4 tenths + 4 tenths =  
 $0.4 + 0.4 + 0.4 =$   
 $0.4 \times 3 =$



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**Do now- books-**



1) 3 tenths + 3 tenths + 3 tenths =  
 $0.3 + 0.3 + 0.3 =$   
 $0.3 \times 3 =$

2) 3 hundredths + 3 hundredths + 3 hundredths =  
 $0.03 + 0.03 + 0.03 =$   
 $0.03 \times 3 =$

3) 4 tenths + 4 tenths + 4 tenths =  
 $0.4 + 0.4 + 0.4 =$   
 $0.4 \times 3 =$

1) 3 tenths + 3 tenths + 3 tenths = 9 tenths

$$0.3 + 0.3 + 0.3 = 0.9$$

$$0.3 \times 3 = 0.9$$

2) 3 hundredths + 3 hundredths + 3 hundredths =  
9 hundredths

$$0.03 + 0.03 + 0.03 = 0.09$$

$$0.03 \times 3 = 0.09$$

3) 4 tenths + 4 tenths + 4 tenths = 12 tenths

$$0.4 + 0.4 + 0.4 = 1.2$$

$$0.4 \times 3 = 1.2$$

10 tenths = 1 whole

mastery  $\longleftrightarrow$  fluency  $\longleftrightarrow$  application

Term Spring 1 Week beginning 10/1/23

Block Decimals

Key vocabulary tenths hundredths  
decimal point thousandths whole number  
rounding place value digit column

|                                     | B | W | S |
|-------------------------------------|---|---|---|
| Place value within 1                |   |   |   |
| Place value - integers and decimals |   |   |   |
| Round decimals                      |   |   |   |
| Add and subtract decimals           |   |   |   |
| Multiply by 10, 100 and 1,000       |   |   |   |
| Divide by 10, 100 and 1,000         |   |   |   |
| Multiply decimals by integers       |   |   |   |
| Divide decimals by integers         |   |   |   |

Stem sentences

- There are ones, tenths, hundredths and thousandths
- The number is
- There are in
- is 10/100/1,000 times the size of
- is one-tenth/hundredth/thousandth the size of
- The previous/next multiple of is
- is closer to than
- So rounded to the nearest is

# Crucial vocabulary

**tenths** – the first number to the right of the decimal point

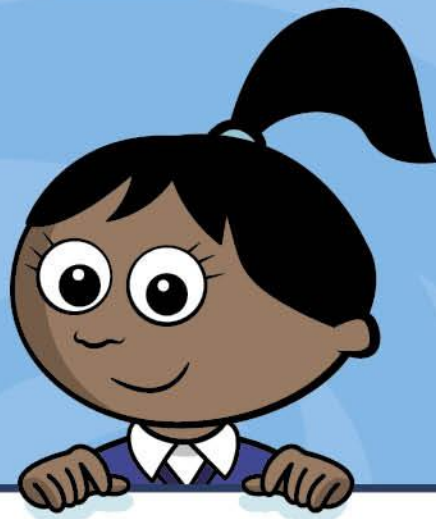
**Hundredths:** The second decimal place to the right of the decimal point; 1 of 100 equal parts. Example: .8 7

**Thousandths:** The third decimal place to the right of the decimal point; 1 of 100 equal parts. Example: .6 4 3

**Decimal Point:** A period separating the ones and tenths in a decimal number.  
Example: **7.4**

**Whole Numbers:** The set of all counting numbers and 0. Example: **296**

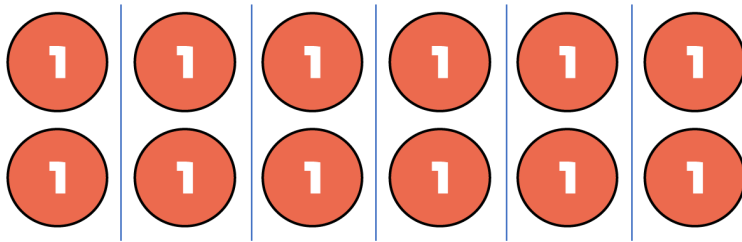
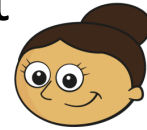
columns  
multiply  
integer  
place value



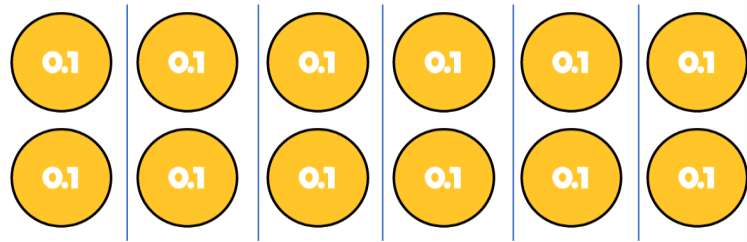
# Let's learn

Get ready for today's  
new learning.

Dora uses place value counters to show that  
6 lots of 2 is 12, and 6 lots of 0.2 is 1.2



$$6 \times 2 = 12$$



$$6 \times 0.2 = 1.2$$

Use Dora's method to complete the calculations.

$$4 \times 2$$

$$4 \times 0.2$$

$$3 \times 4$$

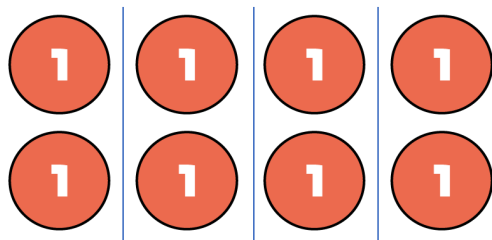
$$3 \times 0.4$$

# Whiteboards

Have a think



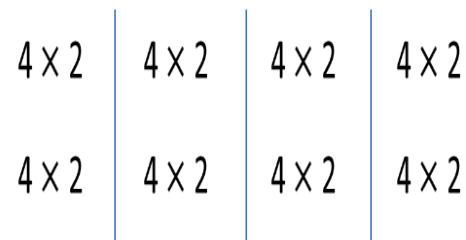
$$4 \times 2 = 8$$



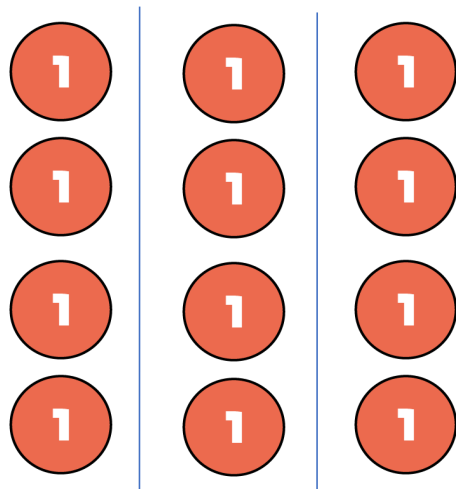
4 multiplied by 2 ones = 8 ones

4 multiplied by 2 tenths = 8 tenths

$$4 \times 0.2 = 0.8$$



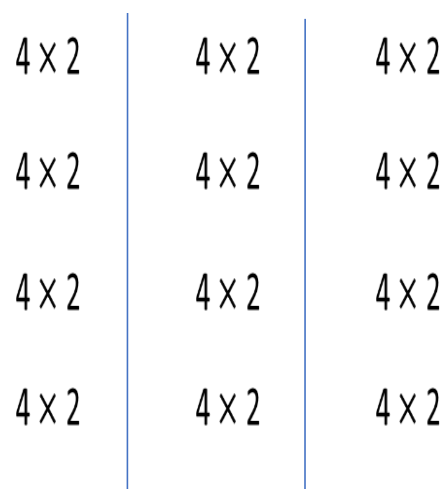
$$3 \times 4 = 12$$

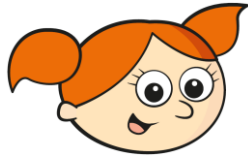


3 multiplied by 4 ones = 12 ones

3 multiplied by 4 tenths = 12 tenths

$$3 \times 0.4 = 1.2$$

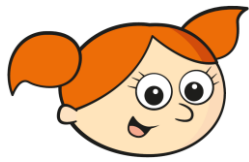




Have a think



Alex runs 3.3 km a day.  
She does this for 3 days.  
How far does she run in 3 days?



Alex runs 3.3 km a day.

She does this for 3 days.

How far does she run in 3 days?

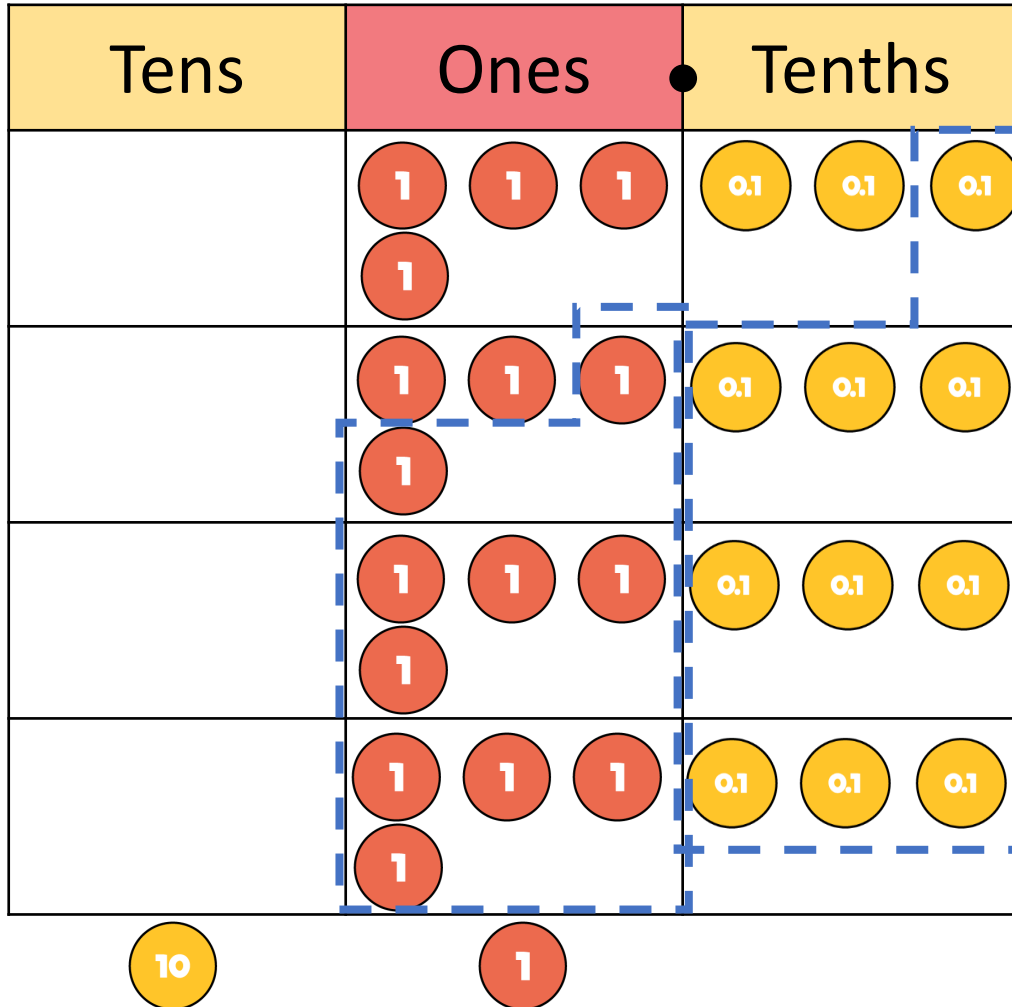
| Tens | Ones  | Tenths      |
|------|-------|-------------|
|      | 1 1 1 | 0.1 0.1 0.1 |
|      | 1 1 1 | 0.1 0.1 0.1 |
|      | 1 1 1 | 0.1 0.1 0.1 |



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$$4.3 \times 4 = 17.2$$

Have a think



|       |   |   |   |
|-------|---|---|---|
|       |   |   |   |
|       |   | 4 | 3 |
|       |   |   |   |
| ×     |   |   | 4 |
| <hr/> |   |   |   |
|       | 1 | 7 | 2 |
|       |   | 1 |   |



Your turn



# Multiply decimals by integers

1 What calculations are shown by the place value counters?

a)

8 ones and 8 tenths

$\square \times \square = \square$        $\square \times \square = \square$

b)

12 ones and 12 tenths

$\square \times \square = \square$

$\square \times \square = \square$

c)

12 ones and 12 tenths

$\square \times \square = \square$        $\square \times \square = \square$

What do you notice?



# Thurs Sq Triangles

2 Use the place value charts to help you work out the multiplications.

a)

| Ones  | Tenths  |
|-------|---------|
| 1 1 1 | 0.1 0.1 |
| 1 1 1 | 0.1 0.1 |
| 1 1 1 | 0.1 0.1 |

3.2

$\times 3$

b)

| Ones    | Tenths          |
|---------|-----------------|
| 1 1 1 1 | 0.1 0.1 0.1 0.1 |
|         | 0.1 0.1         |
| 1 1 1 1 | 0.1 0.1 0.1 0.1 |
|         | 0.1 0.1         |

4.6

$\times 2$

3 Work out the multiplications. Draw your answers.

a)  $12.2 \times 3 = \square$

| Tens | Ones | Tenths |
|------|------|--------|
|      |      |        |

b)  $2.01 \times 4 = \square$

| Tens | Ones | Tenths |
|------|------|--------|
|      |      |        |



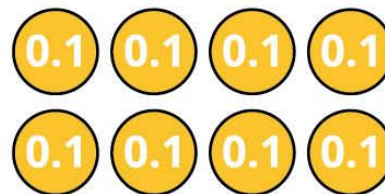
# Multiply decimals by integers

1 What calculations are shown by the place value counters?

a)



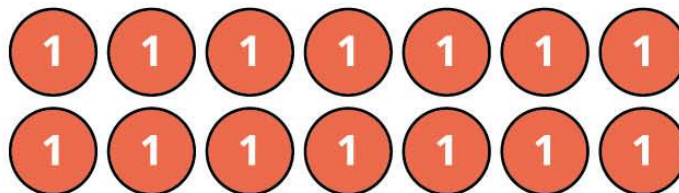
$$\square \times \square = \square$$



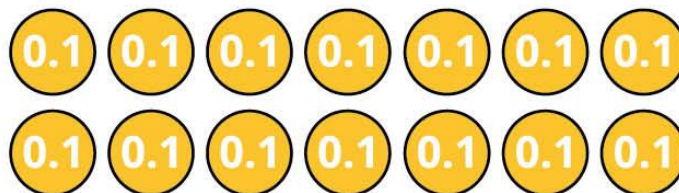
$$\square \times \square = \square$$

1

b)



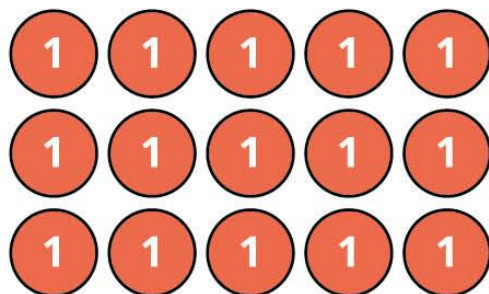
$$\square \times \square = \square$$



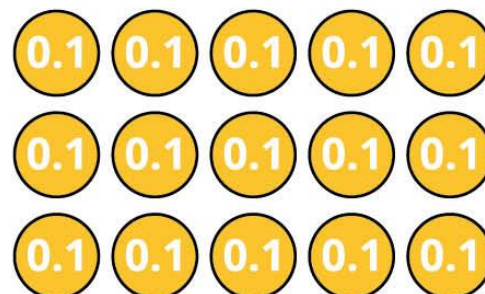
$$\square \times \square = \square$$

1

c)



$$\square \times \square = \square$$



$$\square \times \square = \square$$

What do you notice?



2 Use the place value charts to help you work out the multiplications.

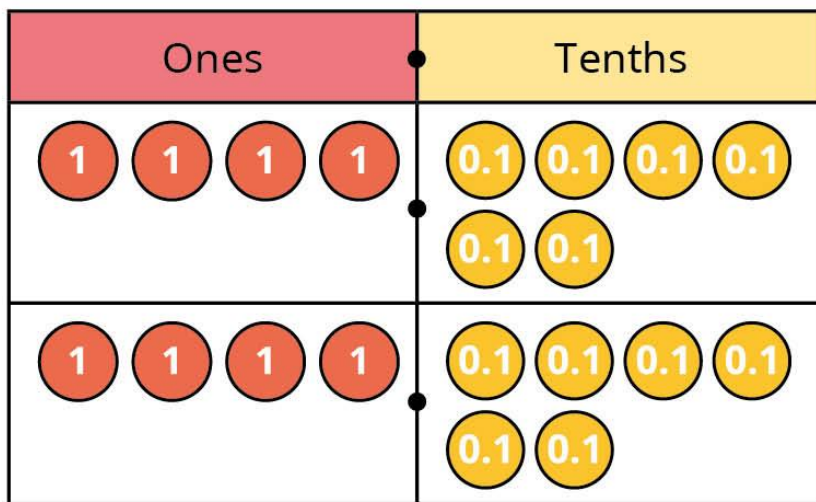
a)

| Ones |   |   | • | Tenths |     |
|------|---|---|---|--------|-----|
| 1    | 1 | 1 | • | 0.1    | 0.1 |
| 1    | 1 | 1 |   | 0.1    | 0.1 |
| 1    | 1 | 1 |   | 0.1    | 0.1 |

|  |   |       |   |   |
|--|---|-------|---|---|
|  |   |       |   |   |
|  |   | 3     | • | 2 |
|  | × |       |   | 3 |
|  |   | <hr/> |   |   |
|  |   |       | • |   |
|  |   | <hr/> |   |   |
|  |   |       |   |   |

2

b)



|  |   |       |   |   |
|--|---|-------|---|---|
|  |   |       |   |   |
|  |   | 4     | • | 6 |
|  | × |       | 2 |   |
|  |   | <hr/> |   |   |
|  |   |       | • |   |
|  |   | <hr/> |   |   |
|  |   |       |   |   |



**3** Work out the multiplications. Draw your answers.

**a)**  $12.2 \times 3 =$

| Tens | Ones | Tenths |
|------|------|--------|
|      |      |        |

**b)**  $2.01 \times 4 =$

| Tens | Ones | Tenths |
|------|------|--------|
|      |      |        |

# Hexagon and Octagons- write in books

## Sq and Triangles Extension



4

Nijah has worked out  $3.72 \times 3$

|  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
|  |   |   |   |   |   |   |
|  |   |   | 3 | • | 7 | 2 |
|  | × |   |   |   |   | 3 |
|  |   | 1 | 1 | • | 1 | 6 |
|  |   | 1 | 2 |   |   |   |

Work out the multiplications.

a)

|  |   |   |   |   |   |
|--|---|---|---|---|---|
|  |   |   |   |   |   |
|  |   | 4 | • | 8 | 6 |
|  | × |   |   |   | 4 |
|  |   |   |   |   |   |
|  |   |   |   |   |   |

b)

|  |   |   |   |   |   |
|--|---|---|---|---|---|
|  |   |   |   |   |   |
|  |   | 2 | • | 0 | 9 |
|  | × |   |   |   | 6 |
|  |   |   |   |   |   |
|  |   |   |   |   |   |

# Hexagon and Octagons



5

Work out the multiplications.

a)  $5.2 \times 4 =$

d)   $= 2.34 \times 3$

b)  $14.3 \times 3 =$

e)  $11.505 \times 4 =$

c)  $6 \times 9.1 =$

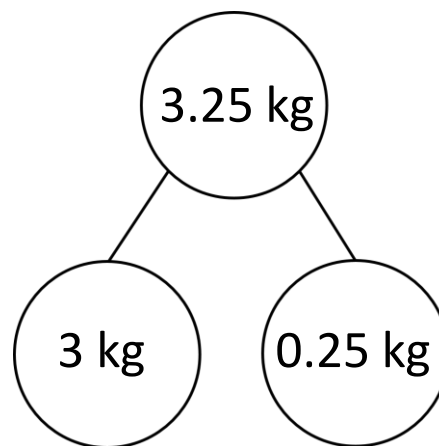
f)  $9.602 \times 6 =$

A jar of sweets has a mass of 3.25 kg.

What is the total mass of 4 jars of sweets?

|       |   |   |   |
|-------|---|---|---|
|       |   |   |   |
|       | 3 | 2 | 5 |
| ×     |   |   | 4 |
| <hr/> |   |   |   |
| 1     | 3 | 0 | 0 |
|       | 1 | 2 |   |

13 kg



$$3 \times 4 + 0.25 \times 4$$

$$12 + 1$$

13 kg  
Have a think





- 6 0.25 kg of flour is needed to make one cake.  
How much flour is needed to make four cakes?

A jar of sweets has a mass of 3.25 kg.

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What is the total mass of 4 jars of sweets?

6

0.25 kg of flour is needed to make one cake.

How much flour is needed to make four cakes?

6

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How much flour is needed to make four cakes?

6

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How much flour is needed to make four cakes?

6

0.25 kg of flour is needed to make one cake.

How much flour is needed to make four cakes?

Have a think



True

False

To work out  $32.7 \times 3$   
I can do  $327 \times 3$  and divide  
the answer by 10

To work out  $3.27 \times 3$   
I can do  $327 \times 3$  and divide  
the answer by 1,000

To work out  $3.27 \times 3$   
I can do  $327 \times 3$  and divide  
the answer by 10 and  
divide by 10 again.

True

False

To work out  $32.7 \times 3$   
I can do  $327 \times 3$  and divide  
the answer by 10

To work out  $3.27 \times 3$   
I can do  $327 \times 3$  and divide  
the answer by 1,000

To work out  $3.27 \times 3$   
I can do  $327 \times 3$  and divide  
the answer by 10 and  
divide by 10 again.

True

False

To work out  $32.7 \times 3$   
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To work out  $3.27 \times 3$   
I can do  $327 \times 3$  and divide  
the answer by 1,000

To work out  $3.27 \times 3$   
I can do  $327 \times 3$  and divide  
the answer by 10 and  
divide by 10 again.

Thurs

True

False

To work out  $32.7 \times 3$   
I can do  $327 \times 3$  and divide  
the answer by 10

To work out  $3.27 \times 3$   
I can do  $327 \times 3$  and divide  
the answer by 1,000

To work out  $3.27 \times 3$   
I can do  $327 \times 3$  and divide  
the answer by 10 and  
divide by 10 again.

True

False

To work out  $32.7 \times 3$   
I can do  $327 \times 3$  and divide  
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I can do  $327 \times 3$  and divide  
the answer by 1,000

To work out  $3.27 \times 3$   
I can do  $327 \times 3$  and divide  
the answer by 10 and  
divide by 10 again.

1

- a)  $4 \times 2 = 8$        $0.4 \times 2 = 0.8$   
 b)  $7 \times 2 = 14$        $0.7 \times 2 = 1.4$   
 c)  $5 \times 3 = 15$        $0.5 \times 3 = 1.5$

2

- a) 9.6  
 b) 9.2

3

- a) 36.6

| Tens                                                                              | Ones                                                                              | Tenths                                                                              |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |

- b) 8.04

| Tens                                                                              | Ones | Tenths                                                                              |
|-----------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|
|  |      |  |

4

- a)

|  |   |   |   |   |  |
|--|---|---|---|---|--|
|  |   |   |   |   |  |
|  |   | 4 | 8 | 6 |  |
|  | x |   |   | 4 |  |
|  | 1 | 9 | 4 | 4 |  |
|  |   | 3 | 2 |   |  |

- b)

|  |   |   |   |   |  |
|--|---|---|---|---|--|
|  |   |   |   |   |  |
|  |   | 2 | 0 | 9 |  |
|  | x |   |   | 6 |  |
|  | 1 | 2 | 5 | 4 |  |
|  |   | 1 | 5 |   |  |

5

- a) 20.8  
 b) 42.9  
 c) 54.6  
 d) 7.02  
 e) 46.02  
 f) 57.612

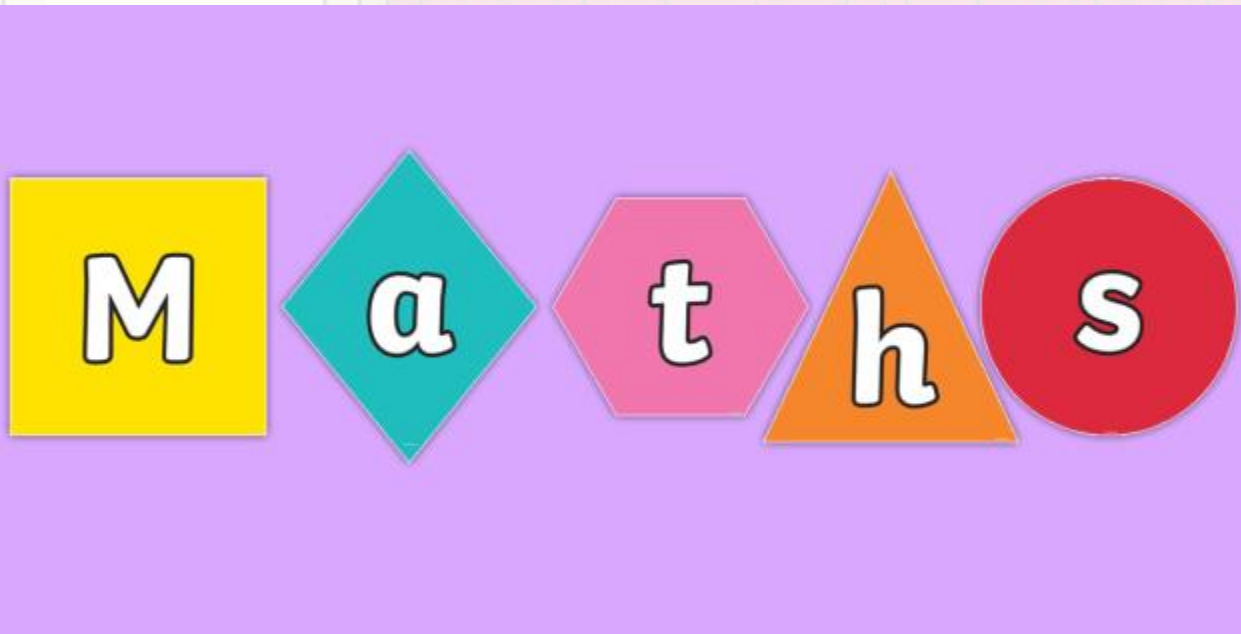
|   |                                                                   |
|---|-------------------------------------------------------------------|
| 5 | a) 20.8<br>b) 42.9<br>c) 54.6<br>d) 7.02<br>e) 46.02<br>f) 57.612 |
| 6 | 1 kg                                                              |
| 7 | a) 14.4<br>28.8<br>57.6<br>b) 10.35<br>103.5<br>1,035             |

**Y6 – Spring – Block 3 – Step 7 – Multiply decimals by integers Answers (continued)**

| Question | Answer                                                                                                                                                                                                               |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8        | No<br>He should have divided 136 by 10, because $3.4 = 34 \div 10$<br>The correct answer is 13.6                                                                                                                     |
| 9        | multiple possible answers, e.g.<br>$1.23 \times 4 = 4.92$<br>$4.13 \times 2 = 8.16$<br>There are 12 possible answers.<br>Children can compare answers to see if they have all 12 possible calculations between them. |

# Thurs-Maths meeting

## Mark homework sheet- Measures



## Converting units

A

Name \_\_\_\_\_

- 1 From the list, choose an appropriate unit of measure for each item.

cm      m      kg      km      g

The weight of a pencil.

g

The length of a classroom.

m

The height of a mountain.

m

- 2 Circle the most appropriate estimate for the capacity of the juice carton.

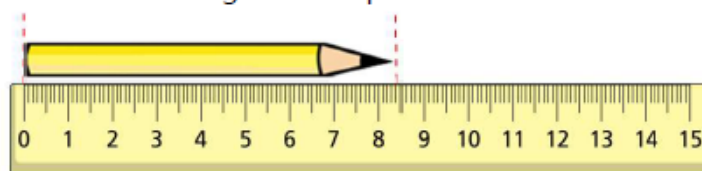


250 litres

250 millilitres

250 grams

- 3 What is the length of the pencil?



Write your answer in cm.

8.4 cm

Write your answer in mm.

84 mm

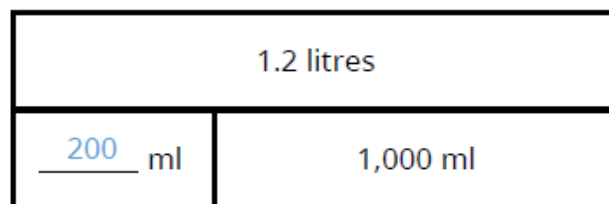
- 4 Complete the sentences.

100 cm is the same as 1 m.

1 kg is the same as 1,000 g.

2.6 litres is the same as 2 litres and 600 ml.

- 5 Complete the bar model.



1 mark



1 mark



3 marks



1 mark



- 6 How many metres are there in 45 kilometres?

45,000 m



1 mark

- 7 Complete the statements using <, > or =

60 seconds  1 hour

10 mm  10 cm

500 g  0.5 kg



3 marks

- 8 5 miles  $\approx$  8 km

Eva walks 10 miles, how many kilometres has she walked?

16 km



1 mark

Teddy walks 4 kilometres, how many miles has he walked?

2.5 miles



1 mark

- 9 1 pound = 16 ounces  
1 stone = 14 pounds

Alex weighs 5 stone.  
How many ounces does Alex weigh?

2 marks for 1,120

1 mark for attempt at  $5 \times 14 \times 16$  1,120 ounces



2 marks

- 10 Boxes of washing powder come in three sizes.

| Box size | Weight | Price |
|----------|--------|-------|
| Small    | 650 g  | £2.99 |
| Medium   | 1 kg   | £3.99 |
| Large    | 3 kg   | £9.99 |

Whitney needs 5.5 kg of washing powder.  
She buys 1 large box, 1 medium box and 2 small boxes.

Does Whitney have enough washing powder?

Yes

☒ No

Show your working.

2 marks for "No" and e.g.

$"3 + 1 + 0.65 + 0.65 = 5.3 < 5.5"$

1 mark for converting between g and kg correctly

How much does Whitney spend on washing powder?

£ 19.96



2 marks



1 mark

