Varied Fluency
Step 5: Round Decimals

National Curriculum Objectives:

Mathematics Year 4: (4F8) Compare numbers with the same number of decimal places up to two decimal places
Mathematics Year 4: (4F7) Round decimals with one decimal place to the nearest whole number

Differentiation:

Developing Questions to support rounding decimals using tenths. Fewer options per question; full number lines; no 0.5s used.
Expected Questions to support rounding decimals using tenths. More options per question; partially labelled number lines; all tenth values used.
Greater Depth Questions to support rounding decimals to the nearest whole using tenths. Partially labelled number lines; unconventional partitioning used. Decimals given in words and numbers.

More Year 4 Decimals resources.

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Round Decimals

1a. Which of these decimals is closest to 2? Which of these decimals is closest to 3?

2.9	2.3

2 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3

D VF

2a. Fill in the number line with the missing whole number and the decimal which rounds up to it.

1 1.1 1.2 1.3 1.4 1.5 1.6 1.7 A 1.9 B

D VF

3a. Do the decimals round up or down? Which whole number do they round to?

3.8	3.7	3.3

3 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4

D VF

4a. Fill in the gaps using these decimals and whole numbers.

7.2	3.8	4	7

_____ rounds up to _____.

_____ rounds down to _____.

D VF

Round Decimals

1b. Which of these decimals is closest to 4? Which of these decimals is closest to 5?

4.2	4.7

4 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5

D VF

2b. Fill in the number line with the missing whole number and the decimal which rounds down to it.

A 6.1 B 6.3 6.4 6.5 6.6 6.7 6.8 6.9 7

D VF

3b. Do the decimals round up or down? Which whole number do they round to?

5.2	5.6	5.1

5 5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 6

D VF

4b. Fill in the gaps using these decimals and whole numbers.

6	5.7	2.3	2

_____ rounds down to _____.

_____ rounds up to _____.

D VF

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Round Decimals

5a. Which of these decimals is closest to 7? Which of these decimals is closest to 8?

7.9	7.5	7.3	7.6	7.4

7 7.5 8

E VF

Round Decimals

5b. Which of these decimals is closest to 5? Which of these decimals is closest to 6?

5.1	5.4	5.8	5.3	5.7

5 5.5 6

E VF

6a. Fill in the number line with the missing whole number and the decimals which round up to it.

4 4.1 4.2 4.3 4.4 A 4.6 B C 4.9 D

E VF

6b. Fill in the number line with the missing whole number and the decimals which round down to it.

A B C 8.3 D 8.5 8.6 8.7 8.8 8.9 9

E VF

7a. Do the decimals round up or down? Which whole number do they round to?

0.8	0.7	0.3	0.5	0.6

0 0.5 1

E VF

7b. Do the decimals round up or down? Which whole number do they round to?

9.4	9.3	9.2	9.7	9.5

9 9.5 10

E VF

8a. Fill in the gaps using these decimals and whole numbers.

2	8.3	2.5	8	2.4	3

_____ rounds down to _____.

_____ rounds up to _____.

_____ rounds down to _____.

E VF

8b. Fill in the gaps using these decimals and whole numbers.

5	7	5.3	6.5	6	5.6

_____ rounds up to _____.

_____ rounds down to _____.

_____ rounds up to _____.

E VF

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Round Decimals

9a. Which of these decimals is closest to 1.0? Which of these decimals is closest to 2.0?

1.1	12 tenths	1.5	16 tenths	1.9

1.0 1.5 2.0

GD VF

9b. Which of these decimals is closest to 3.0? Which of these decimals is closest to 4.0?

33 tenths	3.8	35 tenths	3.6	37 tenths

3.0 3.5 4.0

GD VF

10a. Fill in the number line with the missing whole number and the decimals which round down to it.

A 61 tenths B C D 65 tenths 6.6 6.7 6.8 6.9 7

GD VF

10b. Fill in the number line with the missing whole number and the decimals which round down to it.

4 4.1 42 tenths 4.3 4.4 A B 4.7 48 tenths C D

GD VF

11a. Do the decimals round up or down? Which whole number do they round to?

8.5	7 and 13 tenths	8.6	89 tenths	8 and 8 tenths

8 8.5 9

GD VF

11b. Do the decimals round up or down? Which whole number do they round to?

28 tenths	2.1	22 tenths	2.7	1 and 15 tenths

2 2.5 3

GD VF

12a. Fill in the gaps using these decimals.

6	61 tenths	9.9	3 tenths	0	10

_____ rounds down to _____.

_____ rounds down to _____.

_____ rounds up to _____.

GD VF

12b. Fill in the gaps using these decimals.

43 tenths	4	57 tenths	3	6	26 tenths

_____ rounds up to _____.

_____ rounds up to _____.

_____ rounds down to _____.

GD VF

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Varied Fluency
Round Decimals

Developing

1a. 2.3 is closest to 2; 2.9 is closest to 3.
2a. A = 1.8; B = 2.
3a. 3.8 rounds up to 4; 3.7 rounds up to 4; 3.3 rounds down to 3.
4a. 3.8 rounds up to 4; 7.2 rounds down to 7.

Expected

5a. 7.3 is closest to 7. 7.9 is closest to 8.
6a. A = 4.5; B = 4.7; C = 4.8; D = 5.
7a. 0.8 rounds up to 1; 0.7 rounds up to 1; 0.3 rounds down to 0; 0.5 rounds up to 1; 0.6 rounds up to 1.
8a. 2.4 rounds down to 2; 2.5 rounds up to 3; 8.3 rounds down to 8.

Greater Depth

9a. 1.1.is closest to 1. 1.9 is closest to 2.
10a. A = 6, B = 6.2, C = 6.3, D = 6.4
11a. 8.5 rounds up to 9; 7 and 13 tenths (8.3) rounds down to 8; 8.6 rounds up to 9; 89 tenths (8.9) rounds up to 9; 8 and 8 tenths (8.8) rounds up to 9.
12a. 61 tenths (6.1) rounds down to 6; 3 tenths (0.3) rounds down to 0; 9.9 rounds up to 10.

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Developing

1b. 4.2 is closest to 4; 4.7 is closest to 5.
2b. A = 6; B = 6.2.
3b. 5.2 rounds down to 5; 5.6 rounds up to 6; 5.1 rounds down to 5.
4b. 2.3 rounds down to 2; 5.7 rounds up to 6.

Expected

5b. 5.1 is closest to 5. 5.8 is closest to 6.
6b. A = 8; B = 8.1; C = 8.2; D = 8.4.
7b. 9.4 rounds down to 9; 9.3 rounds down to 9; 9.2 rounds down to 9; 9.7 rounds up to 10; 9.5 rounds up to 10.
8b. 6.5 rounds up to 7; 5.3 rounds down to 5; 5.6 rounds up to 6.

Greater Depth

9b. 33 tenths (3.3) is closest to 3. 3.8 is closest to 4.
10b. A = 4.5, B = 4.6, C = 4.9, D = 5
11b. 28 tenths (2.8) rounds up to 3; 2.1 rounds down to 2; 22 tenths (2.2) rounds down to 2; 2.7 rounds up to 3; 1 and 15 tenths (2.5) rounds up to 3.
12b. 57 tenths (5.7) rounds up to 6; 26 tenths (2.6) rounds up to 3; 43 tenths (4.3) rounds down to 4.

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