

Yr 6 Decimals and fractions Unit 1 (6619)

Additional teacher instructions for practice sheets

These notes indicate which practice sheets are most appropriate for which groups.

Day 1 Place value, addition and subtraction Sheet 1

Working towards ARE / Working at ARE / Greater Depth

Day 2 Multiplying and dividing by 10, 100 and 1000 Sheet 1

Working towards ARE / Working at ARE

Day 2 Multiplying and dividing by 10, 100 and 1000 Sheet 2

Working at ARE / Greater Depth

Day 3 Round decimals to the nearest whole Sheet 1

Working towards ARE

Day 3 Round decimals to the nearest whole, tenth and hundredth Sheet 2

Working at ARE / Greater Depth

Place value addition and subtraction

Sheet 1

1. $4.538 + 0.2$

2. $4.538 + 0.03$

3. $4.538 - 0.004$

4. $4.538 - 0.02$

5. $6.231 + 0.11$

6. $6.231 + 0.101$

7. $6.231 + 0.011$

8. $5.846 - 0.211$

9. $5.846 - 0.13$

10. $5.846 - 0.013$

11. $5.846 - 0.204$

12. $4.789 + 0.001$

Challenge

Start at 4.362.

Add tenths and hundredths to make an addition chain ending with the number 4.627.

Start at 10.769.

Subtract tenths, hundredths and thousandths to make a subtraction chain ending with the number 9.782.

Multiplying and dividing by 10, 100 and 1000

Sheet 1

Item	Weight
Packet of crisps	0.025kg
Can of beans	0.25kg
Bag of potatoes	2.5kg
Child	25kg
Motorbike	250kg
Land Rover	2500kg

What happens to the digits 2 and 5 as you multiply by 10?
And divide by 10?

A motorbike weighs the same as bags of potatoes.

A Land Rover weighs the same as motorbikes.

Write other facts like these using the information from the table.

Multiplying and dividing by 10, 100 and 1000

Sheet 2

1. $4326 \div \square = 432.6$

6. $783 \div \square = 7.83$

2. $4326 \div \square = 4.326$

7. $4.535 \times \square = 453.5$

3. $7840 \div \square = 78.4$

8. $4.535 \times \square = 4535$

4. $7840 \div \square = 7.84$

9. $\square \times 1000 = 786$

5. $783 \div \square = 0.783$

10. $\square \times 100 = 78.6$

Fill in the missing functions: $\times 10$, $\times 100$, $\times 1000$, $\div 10$, $\div 100$, $\div 1000$.

11. $789,234 \longrightarrow \square \longrightarrow 789.234$

12. $234 \longrightarrow \square \longrightarrow 23,400$

13. $45,830 \longrightarrow \square \longrightarrow 45.83$

14. $0.079 \longrightarrow \square \longrightarrow 79$

15. $0.65 \longrightarrow \square \longrightarrow 650$

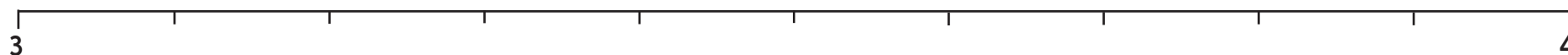
16. $4.507 \longrightarrow \square \longrightarrow 450.7$

Round decimals to the nearest whole

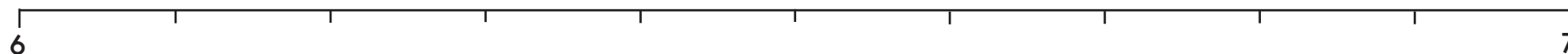
Sheet 1

Mark the numbers on the lines. Ring the nearest whole number.

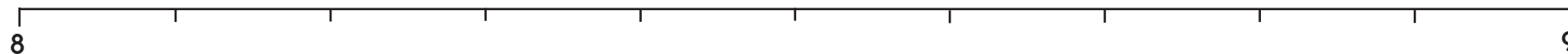
1. 3.4



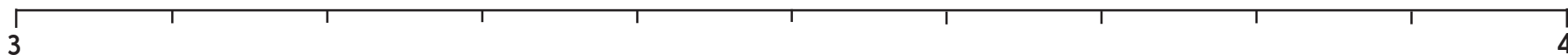
2. 6.7



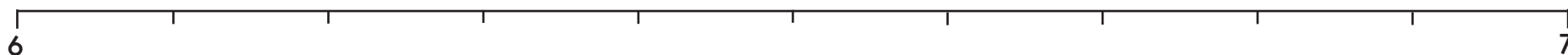
3. 8.2



4. 3.71



5. 6.29

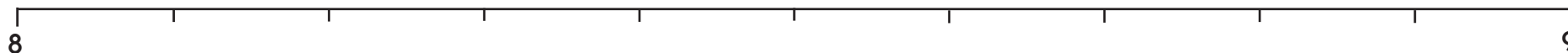


Round decimals to the nearest whole

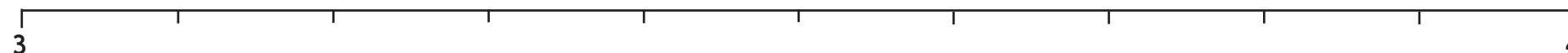
Sheet 1 continued

Mark the numbers on the lines. Ring the nearest whole number.

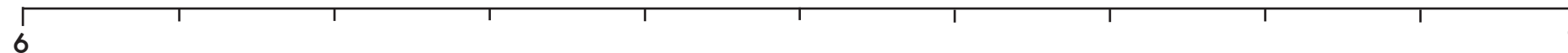
6. 8.45



7. 3.245



8. 6.534



9. 8.078



Challenge

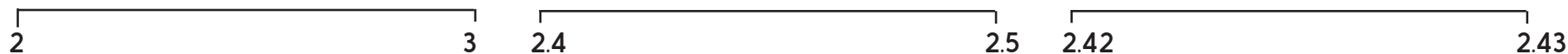
Write three numbers between 4 and 5 which round to 4.

Write three numbers between 4 and 5 which round to 5.

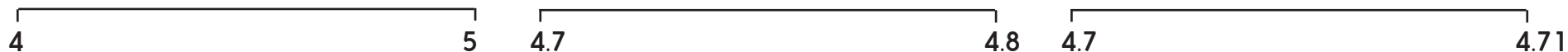
Round decimals to the nearest whole, tenth and hundredth

Sheet 2

1. Mark the number 2.426 on these three lines.
Ring the nearest whole number, tenth and hundredth.



2. Mark the number 4.706 on these three lines.
Ring the nearest whole number, tenth and hundredth.



3. Round these numbers to the nearest whole.

5.6 → 7.32 → 6.97 →

4. Round these numbers to the nearest whole.

8.23 → 63.78 → 0.82 →

5. Round these numbers to the nearest whole.

9.348 → 0.293 → 4.509 →

Decimals and fractions

Answers

Day 1 Place value addition and subtraction Sheet 1

- | | |
|-----------------------------|-----------------------------|
| 1. $4.538 + 0.2 = 4.738$ | 2. $4.538 + 0.03 = 4.568$ |
| 3. $4.538 - 0.004 = 4.534$ | 4. $4.538 - 0.02 = 4.518$ |
| 5. $6.231 + 0.11 = 6.341$ | 6. $6.231 + 0.101 = 6.332$ |
| 7. $6.231 + 0.011 = 6.242$ | 8. $5.846 - 0.211 = 5.635$ |
| 9. $5.846 - 0.13 = 5.716$ | 10. $5.846 - 0.013 = 5.833$ |
| 11. $5.846 - 0.204 = 5.642$ | 12. $4.789 + 0.001 = 4.79$ |

Challenge

Accept answers where children have added both tenths and hundredths to reach the answer, e.g. $4.362 + 0.2 + 0.065 = 4.627$ or $4.362 + 0.18 + 0.085 = 4.647$

Accept answers where children have subtracted tenths, hundredths and thousandths to reach the answer, e.g.

$$10.769 - 0.9 - 0.08 - 0.007 = 9.782$$

Day 2 Multiplying and dividing by 10, 100 and 1000 Sheet 1

As you multiply by 10 the digits move one place to the left, so 2.5 becomes 25.
As you divide by 10 the digits move one place to the right, so 2.5 becomes 0.25.

A motorbike weighs the same as 100 bags of potatoes.
A Land Rover weighs the same as 10 motorbikes.

Day 2 Multiplying and dividing by 10, 100 and 1000 Sheet 2

- | | |
|-----------------------------------|--------------------------------|
| 1. $4326 \div 10 = 432.6$ | 2. $4326 \div 1000 = 4.326$ |
| 3. $7840 \div 100 = 78.4$ | 4. $7840 \div 1000 = 7.84$ |
| 5. $783 \div 1000 = 0.783$ | 6. $783 \div 100 = 7.83$ |
| 7. $4.535 \times 100 = 453.5$ | 8. $4.535 \times 1000 = 4535$ |
| 9. $0.786 \times 1000 = 786$ | 10. $0.786 \times 100 = 78.6$ |
| 11. $789,234 \div 1000 = 789.234$ | 12. $234 \times 100 = 23,400$ |
| 13. $45,830 \div 1000 = 45.83$ | 14. $0.079 \times 10 = 0.79$ |
| 15. $0.65 \times 1000 = 650$ | 16. $4.507 \times 100 = 450.7$ |

Decimals and fractions

Answers

Day 3 Round decimals to the nearest whole Sheet 1

Children should have ringed the following whole numbers:

- | | | | | | |
|----|---|----|---|----|---|
| 1. | 3 | 4. | 4 | 7. | 3 |
| 2. | 7 | 5. | 6 | 8. | 7 |
| 3. | 8 | 6. | 8 | 9. | 8 |

Challenge

Accept answers where children have written three numbers within the parameters given, e.g. 4.23, 4.46, 4.21 all round to 4 and 4.78, 4.56 and 4.89 all round to 5.

Day 3 Round decimals to the nearest whole Sheet 2

Children should have ringed the following numbers:

2.426 Nearest whole number = 2 Nearest tenth = 2.4 Nearest hundredth = 2.43
4.706 Nearest whole number = 5 Nearest tenth = 4.7 Nearest hundredth = 4.71

Rounded to nearest whole:

5.6 = 6 7.32 = 7 6.97 = 7

Rounded to the nearest whole:

8.23 = 8 63.78 = 64 0.82 = 1

Rounded to the nearest whole:

9.348 = 9 0.293 = 0 4.509 = 5