Read and interpret tables

White Rose Maths

1 The table shows the weight of five dogs, to the nearest kilogram.

Name of dog	Weight
Buster	12 kg
Misty	26 kg
Titch	14 kg
Henry	
Patch	

a) What is the total weight of Buster and Titch?

b) Henry is 10 kg heavier than Misty.

Write Henry's weight in the table.

c) Patch is heavier that Titch but weighs less than Misty.

Write the dogs names in order of weight, starting with the lightest.

_____

_____

2 The table shows the number of children in each year at a primary school.

Year	1	2	3	4	5	6
Number of children	28	31	29	25	32	

There are 175 children in the school in total.

How many children are in Year 6?

Complete the table.

How did you work this out? Talk to a partner.

3 The table shows the average summer temperature for different cities.

City	London	Edinburgh	Paris	Madrid	Rome	Berlin
Temperature (°C)	21	15	25	31	30	22

a) What is the average summer temperature in Paris?

b) Which city has the warmest average temperature during the summer? _____

c) What is the difference in average temperature between Berlin and Edinburgh?

d) Which two cities have a difference of just one degree in average summer temperature?

_____

e) Eva and her parents live in London.

They want to have a summer holiday somewhere warmer.

Which city do you think they should go to? _____

Explain your answer.

4 Teachers asked children how they travel to school.

The tables show how the children in Year 4 and Year 5 travel to school.

Year 4

Method of travel	Walk	Bike	Car	Bus
Number of children	18	1	10	0

Year 5

Method of travel	Walk	Bike	Car	Bus
Number of children	17	3	7	1

a) What is the most common method of travel in both year groups?

_____

b) How many more children travel by car in Year 4 than in Year 5?

c) Which year has the most children?

_____

d) Year 5 children cause less pollution than Year 4, getting to school.

Is Tommy correct? _____

Explain your answer.

5 The table shows the number of ice creams sold in a shop last week.

Day	Mon	Tue	Wed	Thur	Fri	Sat	Sun
Ice creams sold	15	27	13	19	2	46	38

The shop sold more ice creams in total on Saturday and Sunday than during the rest of the week.

Do you agree with Alex? _____

Explain your reasons.

6 Class 5B did a survey to find out the types of pets children had at home.

Dog	Cat	Hamster	Rabbit	Goldfish
卌 II	卌	III	IIII	卌

There are 24 children in the class.

Dora

We do not know how many children are in the class.

Rosie

There are more than 24 children in the class.

Amir

Who is correct? _____

Explain your answer.

Two-way tables

1 A film is shown twice a day at 3 pm and 7 pm.

The table shows the number of children and adults that see each show in one day.

	Adults	Children
3 pm showing	28	65
7 pm showing	58	12

a) How many children watched the 7 pm showing?

b) How many adults watched the film that day?

c) There are 100 seats in the cinema.

How many seats were empty at the 3pm showing?

d) Did more children or more adults watch the film?

Show your workings.

e) Why do you think fewer children watched the 7pm showing?

2 The table shows information about the eye colour of 100 people.

	Brown	Blue	Green	Total
Boys	12	25		70
Girls			8	
Total	29			100

a) Complete the table.

b) How many boys have green eyes?

c) How many girls have blue eyes?

d) How many more girls have brown eyes than blue eyes?

3 The table below shows the distance in miles between some cities.

London				
3,459	New York			
5,938	6,736	Tokyo		
6,011	7,803	9,152	Cape Town	
10,553	9,929	7,819	6,845	Sydney

a) What is the distance between Sydney and Tokyo?

b) Which two cities are the furthest apart?

_____ and _____

c) Choose a city to start in and then two more different places to visit.

How far would you have to travel?

4 Teams are awarded points for each event at a swimming gala.

Some of the scores have accidentally been washed off!

	Breaststroke	Backstroke	Butterfly	Freestyle	Total
Yellow	405		210	395	1,970
Red	650	420		650	
Green	210		400		1,480
Blue		210	610	510	
Total	1,610		1,430	1,925	

Work out the missing scores and complete the table.

Write 3 questions for your partner to answer about the information on the table.

_____

_____

_____

5 The table shows information about some of the world's tallest buildings.

Building	Country	Height (m)	Number of floors	Year completed
Burj Khalifa	UAE	828	163	2010
Shanghai Tower	China	632	128	2015
Abraj Al-Bait Clock Tower	Saudi Arabia	601	120	2012
Ping An Finance Centre	China	599	115	2017
Goldin Finance 117	China	597	128	2019

a) How tall is the tallest building? ☐

b) Which building is 601 m tall? _____

c) Which two buildings have the same number of floors?

_____

d) Which building was completed most recently? _____

e) How much taller is the Burj Khalifa than the Goldin Finance 117 building? ☐

f) Three-fifths of the buildings are in China.

Is this statement correct? _____

Explain how you know.

_____

_____

Multiplying decimals by 10, 100 and 1,000

1 Complete the multiplications.

a)

H	T	O	Tths	Hths
		3	7	

3.7 × 10 = ☐

b)

H	T	O	Tths	Hths
	1	4	5	

14.5 × 10 = ☐

c)

H	T	O	Tths	Hths
		1	5	8

1.58 × 10 = ☐

d)

H	T	O	Tths	Hths
	1	3	0	6

13.06 × 10 = ☐

What do you notice when you multiply a number by 10?

2 Complete the multiplications.

a) 1.7 × 10 = ☐

b) 1.75 × 10 = ☐

c) 1.73 × 10 = ☐

d) 13.4 × 10 = ☐

e) 10 × 13.04 = ☐

f) 130.4 × 10 = ☐

3 Complete the multiplications.

a)

H	T	O	Tths	Hths
		4	1	

4.1 × 100 = ☐

b)

H	T	O	Tths	Hths
		4	1	5

4.15 × 100 = ☐

c)

H	T	O	Tths	Hths
	1	4	5	

14.5 × 100 = ☐

d)

H	T	O	Tths	Hths
		4	0	5

4.05 × 100 = ☐

What do you notice when you multiply a number by 100?

4 Complete the calculations.

a) 7.2 × 100 = ☐

b) 3.4 × 100 = ☐

c) 19.5 × 100 = ☐

d) 1.89 × 100 = ☐

e) 73.57 × 100 = ☐

f) 1.317 × 100 = ☐

5 Amir has multiplied 3.8 by 1,000

The answer is 3.8000

a) What mistake has Amir made?

_____

_____

b) Work out the correct answer.   3.8 × 1,000 = ☐

6 Complete the multiplications.

a) 4.7 × 10 = ☐   c) 5.84 × 10 = ☐

4.7 × 100 = ☐   5.84 × 100 = ☐

4.7 × 1,000 = ☐   5.84 × 1,000 = ☐

b) 19.3 × 10 = ☐   d) 18.06 × 10 = ☐

19.3 × 100 = ☐   100 × 18.06 = ☐

1,000 × 19.3 = ☐   18.06 × 1,000 = ☐

How did you work out the answers? Talk to a partner.

7 Complete the calculations.

a) 7.7 × ☐ = 770   e) 8.032 × ☐ = 80.32

b) ☐ × 10 = 1,950   f) ☐ × 18.3 = 1,830

c) 11.5 × ☐ = 115   g) 195.32 × ☐ = 1,953.2

d) ☐ × 11.5 = 11,500   h) ☐ × 1,000 = 7,200

8 Tommy is 1.4 m tall.

A tree is 10 times as tall as Tommy.

A building is 100 times as tall as Tommy.

a) How tall is the tree?   ☐ m

b) How much taller is the building than the tree?

☐ m

9 Match the multiplications to the descriptions.

| × 10 × 10 | | multiply by 10 |

| × 10 × 10 × 10 | | |

| × 100 × 10 | | multiply by 100 |

| × 10 × 100 | | |

| × 10 × 1 | | multiply by 1,000 |

Dividing decimals by 10, 100 and 1,000

White Rose Maths

1 Complete the divisions.

a)

H	T	O	Tths	Hths
		5		

$5 \div 10 =$ ☐

b)

H	T	O	Tths	Hths
	1	5		

$15 \div 10 =$ ☐

c)

H	T	O	Tths	Hths
		3	8	

$3.8 \div 10 =$ ☐

d)

H	T	O	Tths	Hths
	1	3	8	

$13.8 \div 10 =$ ☐

What do you notice when you divide a number by 10?

2 Complete the calculations.

a) $7 \div 10 =$ ☐

b) $7.8 \div 10 =$ ☐

c) $7.86 \div 10 =$ ☐

d) $16 \div 10 =$ ☐

e) $16.4 \div 10 =$ ☐

f) $16.48 \div 10 =$ ☐

3 Complete the divisions.

a)

H	T	O	Tths	Hths	Thths
	1	7			

$17 \div 100 =$ ☐

b)

H	T	O	Tths	Hths	Thths
		9	4		

$9.4 \div 100 =$ ☐

c)

H	T	O	Tths	Hths	Thths
2	7	6			

$276 \div 100 =$ ☐

d)

H	T	O	Tths	Hths	Thths
	3	2	5		

$32.5 \div 100 =$ ☐

What do you notice when you divide a number by 100?

4 Complete the divisions.

a) $7 \div 100 =$ ☐

b) $109 \div 100 =$ ☐

$7.2 \div 100 =$ ☐

$10.9 \div 100 =$ ☐

$7.25 \div 100 =$ ☐

$10.95 \div 100 =$ ☐

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5 Use a place value chart to work out 136 ÷ 1,000

H	T	O	Tths	Hths	Thths
1	3	6			

Complete the calculation.
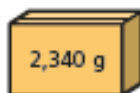
136 ÷ 1,000 = [ ]

Talk to a partner about your method.

6 Use your knowledge of measure to work out the answers.

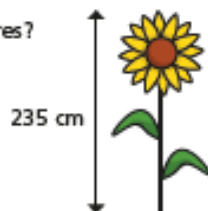a) What is the mass of the box in kilograms?

[ ] ÷ [ ] = [ ]

2,340 g

b) What is the height of the sunflower in metres?

[ ] ÷ [ ] = [ ]

235 cm

c) What is the amount of juice in litres?

[ ] ÷ [ ] = [ ]

380 ml

7 Complete the calculations.

a) 147 ÷ 10 = [ ]

147 ÷ 100 = [ ]

147 ÷ 1,000 = [ ]

b) 21 ÷ 10 = [ ]

21 ÷ 100 = [ ]

21 ÷ 1,000 = [ ]

c) 3,200 ÷ 10 = [ ]

3,200 ÷ 100 = [ ]

3,200 ÷ 1,000 = [ ]

d) 5,006 ÷ 10 = [ ]

5,006 ÷ 100 = [ ]

5,006 ÷ 1,000 = [ ]

8 Complete the divisions.

a) 83 ÷ [ ] = 0.83

b) [ ] ÷ 10 = 0.95

c) [ ] ÷ 10 = 3.9

d) 68 ÷ [ ] = 0.068

e) 1,799 ÷ [ ] = 17.99

f) [ ] ÷ 100 = 11.8

g) 178 ÷ [ ] = 17.8

h) 3.18 ÷ [ ] = 0.318

Read and interpret tables

White Rose Maths

1 The table shows the weight of five dogs, to the nearest kilogram.

Name of dog	Weight
Buster	12 kg
Misty	26 kg
Titch	14 kg
Henry	36kg
Patch	

a) What is the total weight of Buster and Titch?

26kg

b) Henry is 10 kg heavier than Misty.

Write Henry's weight in the table.

c) Patch is heavier that Titch but weighs less than Misty.

Write the dogs names in order of weight, starting with the lightest.

Buster, Titch, Patch, Misty, Henry

2 The table shows the number of children in each year at a primary school.

Year	1	2	3	4	5	6
Number of children	28	31	29	25	32	30

There are 175 children in the school in total.

How many children are in Year 6?

Complete the table.

How did you work this out? Talk to a partner.

3 The table shows the average summer temperature for different cities.

City	London	Edinburgh	Paris	Madrid	Rome	Berlin
Temperature (°C)	21	15	25	31	30	22

a) What is the average summer temperature in Paris? 25°C

b) Which city has the warmest average temperature during the summer? Madrid

c) What is the difference in average temperature between Berlin and Edinburgh? 7°C

d) Which two cities have a difference of just one degree in average summer temperature?

London & Berlin   or   Rome & Madrid

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e) Eva and her parents live in London.

They want to have a summer holiday somewhere warmer.

Which city do you think they should go to? __E.g. Madrid__

Explain your answer.

4 Teachers asked children how they travel to school.

The tables show how the children in Year 4 and Year 5 travel to school.

Year 4

Method of travel	Walk	Bike	Car	Bus
Number of children	18	1	10	0

Year 5

Method of travel	Walk	Bike	Car	Bus
Number of children	17	3	7	1

a) What is the most common method of travel in both year groups?

__Walk__

b) How many more children travel by car in Year 4 than in Year 5?

3

c) Which year has the most children?

__Year 4__

d)

> Year 5 children cause less pollution than Year 4, getting to school.

Is Tommy correct? __Yes/no/can't tell with correct justification.__

Explain your answer.

5 The table shows the number of ice creams sold in a shop last week.

Day	Mon	Tue	Wed	Thur	Fri	Sat	Sun
Ice creams sold	15	27	13	19	2	46	38

> The shop sold more ice creams in total on Saturday and Sunday than during the rest of the week.

Do you agree with Alex? __yes__

Explain your reasons.

6 Class 5B did a survey to find out the types of pets children had at home.

Dog	Cat	Hamster	Rabbit	Goldfish
卌 II	卌	III	IIII	卌

> Dora: There are 24 children in the class.

> Rosie: We do not know how many children are in the class.

> Amir: There are more than 24 children in the class.

Who is correct? __Rosie__

Explain your answer.

Two-way tables

White Rose Maths

1 A film is shown twice a day at 3 pm and 7 pm.

The table shows the number of children and adults that see each show in one day.

	Adults	Children
3 pm showing	28	65
7 pm showing	58	12

a) How many children watched the 7 pm showing? `12`

b) How many adults watched the film that day?

`86`

c) There are 100 seats in the cinema.

How many seats were empty at the 3pm showing?

`7`

d) Did more children or more adults watch the film?

Show your workings.

`Adults`

e) Why do you think fewer children watched the 7pm showing?

2 The table shows information about the eye colour of 100 people.

	Brown	Blue	Green	Total
Boys	12	25	33	70
Girls	17	5	8	30
Total	29	30	41	100

a) Complete the table.

b) How many boys have green eyes? `33`

c) How many girls have blue eyes? `5`

d) How many more girls have brown eyes than blue eyes? `12`

3 The table below shows the distance in miles between some cities.

London				
3,459	New York			
5,938	6,736	Tokyo		
6,011	7,803	9,152	Cape Town	
10,553	9,929	7,819	6,845	Sydney

a) What is the distance between Sydney and Tokyo? `7,819`

b) Which two cities are the furthest apart?

___London___ and ___Sydney___

c) Choose a city to start in and then two more different places to visit.

How far would you have to travel?

Various answers e.g.

London → New York → Tokyo `10,195 miles`

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4 Teams are awarded points for each event at a swimming gala.

Some of the scores have accidentally been washed off!

	Breaststroke	Backstroke	Butterfly	Freestyle	Total
Yellow	405	960	210	395	1,970
Red	650	420	210	650	1,930
Green	210	500	400	370	1,480
Blue	345	210	610	510	1,675
Total	1,610	2,090	1,430	1,925	7,055

Work out the missing scores and complete the table.

Write 3 questions for your partner to answer about the information on the table.

Various answers.

5 The table shows information about some of the world's tallest buildings.

Building	Country	Height (m)	Number of floors	Year completed
Burj Khalifa	UAE	828	163	2010
Shanghai Tower	China	632	128	2015
Abraj Al-Bait Clock Tower	Saudi Arabia	601	120	2012
Ping An Finance Centre	China	599	115	2017
Goldin Finance 117	China	597	128	2019

a) How tall is the tallest building? 828 m

b) Which building is 601 m tall? _Abraj Al-Bait Clock Tower_

c) Which two buildings have the same number of floors?

Shanghai Tower & Goldin Finance 117

d) Which building was completed most recently? _Goldin Finance 117_

e) How much taller is the Burj Khalifa than the Goldin Finance 117 building?

231 m

f) Three-fifths of the buildings are in China.

Is this statement correct? _yes_

Explain how you know.

Three out of the 5 buildings are in China

Multiplying decimals by 10, 100 and 1,000

White Rose Maths

1 Complete the multiplications.

a)

H	T	O	• Tths	Hths
		3	• 7	

$3.7 \times 10 = 37$

b)

H	T	O	• Tths	Hths
	1	4	• 5	

$14.5 \times 10 = 145$

c)

H	T	O	• Tths	Hths
		1	• 5	8

$1.58 \times 10 = 15.8$

d)

H	T	O	• Tths	Hths
	1	3	• 0	6

$13.06 \times 10 = 130.6$

What do you notice when you multiply a number by 10?

2 Complete the multiplications.

a) $1.7 \times 10 = 17$

b) $1.75 \times 10 = 17.5$

c) $1.73 \times 10 = 17.3$

d) $13.4 \times 10 = 134$

e) $10 \times 13.04 = 130.4$

f) $130.4 \times 10 = 1,304$

3 Complete the multiplications.

a)

H	T	O	• Tths	Hths
		4	• 1	

$4.1 \times 100 = 410$

b)

H	T	O	• Tths	Hths
		4	• 1	5

$4.15 \times 100 = 415$

c)

H	T	O	• Tths	Hths
	1	4	• 5	

$14.5 \times 100 = 1,450$

d)

H	T	O	• Tths	Hths
		4	• 0	5

$4.05 \times 100 = 405$

What do you notice when you multiply a number by 100?

4 Complete the calculations.

a) $7.2 \times 100 = 720$

b) $3.4 \times 100 = 340$

c) $19.5 \times 100 = 1,950$

d) $1.89 \times 100 = 189$

e) $73.57 \times 100 = 7,357$

f) $1.317 \times 100 = 131.7$

5 Amir has multiplied 3.8 by 1,000

The answer is 3.8000

a) What mistake has Amir made?

_____

_____

b) Work out the correct answer. 3.8 × 1,000 = ☐

6 Complete the multiplications.

a) 4.7 × 10 = ☐

4.7 × 100 = ☐

4.7 × 1,000 = ☐

c) 5.84 × 10 = ☐

5.84 × 100 = ☐

5.84 × 1,000 = ☐

b) 19.3 × 10 = ☐

19.3 × 100 = ☐

1,000 × 19.3 = ☐

d) 18.06 × 10 = ☐

100 × 18.06 = ☐

18.06 × 1,000 = ☐

How did you work out the answers? Talk to a partner.

7 Complete the calculations.

a) 7.7 × ☐ = 770

b) ☐ × 10 = 1,950

c) 11.5 × ☐ = 115

d) ☐ × 11.5 = 11,500

e) 8.032 × ☐ = 80.32

f) ☐ × 18.3 = 1,830

g) 195.32 × ☐ = 1,953.2

h) ☐ × 1,000 = 7,200

8 Tommy is 1.4 m tall.

A tree is 10 times as tall as Tommy.

A building is 100 times as tall as Tommy.

a) How tall is the tree? ☐ m

b) How much taller is the building than the tree?

☐ m

9 Match the multiplications to the descriptions.

× 10 × 10

× 10 × 10 × 10

× 100 × 10

× 10 × 100

× 10 × 1

multiply by 10

multiply by 100

multiply by 1,000

Dividing decimals by 10, 100 and 1,000

White Rose Maths

1 Complete the divisions.

a)

H	T	O	•	Tths	Hths
		5	•		

$5 \div 10 = \boxed{0.5}$

b)

H	T	O	•	Tths	Hths
	1	5	•		

$15 \div 10 = \boxed{1.5}$

c)

H	T	O	•	Tths	Hths
		3	•	8	

$3.8 \div 10 = \boxed{0.38}$

d)

H	T	O	•	Tths	Hths
	1	3	•	8	

$13.8 \div 10 = \boxed{1.38}$

What do you notice when you divide a number by 10?

2 Complete the calculations.

a) $7 \div 10 = \boxed{0.7}$

b) $7.8 \div 10 = \boxed{0.78}$

c) $7.86 \div 10 = \boxed{0.786}$

d) $16 \div 10 = \boxed{1.6}$

e) $16.4 \div 10 = \boxed{1.64}$

f) $16.48 \div 10 = \boxed{1.648}$

3 Complete the divisions.

a)

H	T	O	•	Tths	Hths	Thths
	1	7	•			

$17 \div 100 = \boxed{0.17}$

b)

H	T	O	•	Tths	Hths	Thths
		9	•	4		

$9.4 \div 100 = \boxed{0.094}$

c)

H	T	O	•	Tths	Hths	Thths
2	7	6	•			

$276 \div 100 = \boxed{2.76}$

d)

H	T	O	•	Tths	Hths	Thths
	3	2	•	5		

$32.5 \div 100 = \boxed{0.325}$

What do you notice when you divide a number by 100?

4 Complete the divisions.

a) $7 \div 100 = \boxed{0.07}$

b) $109 \div 100 = \boxed{1.09}$

$7.2 \div 100 = \boxed{0.072}$

$10.9 \div 100 = \boxed{0.109}$

$7.25 \div 100 = \boxed{0.0725}$

$10.95 \div 100 = \boxed{0.1095}$

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5 Use a place value chart to work out 136 ÷ 1,000

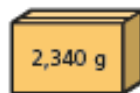| H	T	O	•	Tths	Hths	Thths
1	3	6	•			

Complete the calculation.

136 ÷ 1,000 = 0·136

Talk to a partner about your method.

6 Use your knowledge of measure to work out the answers.

a) What is the mass of the box in kilograms?

2,340 ÷ 1,000 = 2·34

2,340 g

b) What is the height of the sunflower in metres?

235 ÷ 100 = 2·35

235 cm

c) What is the amount of juice in litres?

380 ÷ 1,000 = 0·38

380 ml

7 Complete the calculations.

a) 147 ÷ 10 = 14·7

147 ÷ 100 = 1·47

147 ÷ 1,000 = 0·147

b) 21 ÷ 10 = 2·1

21 ÷ 100 = 0·21

21 ÷ 1,000 = 0·021

c) 3,200 ÷ 10 = 320

3,200 ÷ 100 = 32

3,200 ÷ 1,000 = 3·2

d) 5,006 ÷ 10 = 500·6

5,006 ÷ 100 = 50·06

5,006 ÷ 1,000 = 5·006

8 Complete the divisions.

a) 83 ÷ 100 = 0.83

b) 9·5 ÷ 10 = 0.95

c) 39 ÷ 10 = 3.9

d) 68 ÷ 1,000 = 0.068

e) 1,799 ÷ 100 = 17.99

f) 1,180 ÷ 100 = 11.8

g) 178 ÷ 10 = 17.8

h) 3.18 ÷ 10 = 0.318