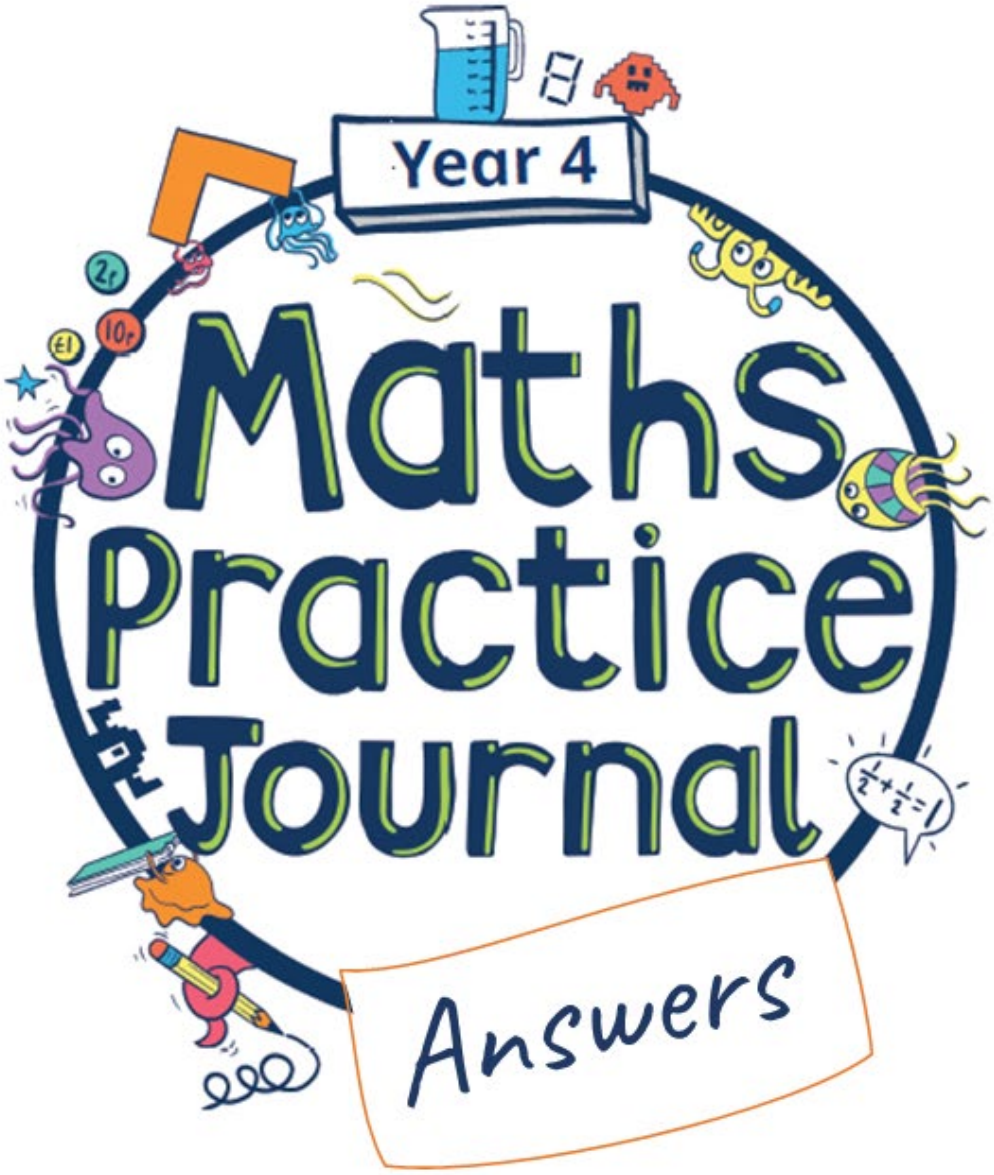
White Rose MATHS



Series Editor and Author: MK Connolly

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Year 4 Answers

Autumn term	Spring term	Summer term
Week 1	Week 1	Week 1
Week 2	Week 2	Week 2
Week 3	Week 3	Week 3
Week 4	Week 4	Week 4
Week 5	Week 5	Week 5
Week 6	Week 6	Week 6
Week 7	Week 7	Week 7
Week 8	Week 8	Week 8
Week 9	Week 9	Week 9
Week 10	Week 10	Week 10
Week 11	Week 11	Week 11
Week 12	Week 12	Week 12
Self-assessment	Self-assessment	Self-assessment

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Autumn term Week 1

Let's remember

1 4

2 68p

3 $\frac{1}{4}$

4 57 + **43** = 100

Let's practise

1 There are five hundred and thirty-seven crayons.

There are **537** crayons.

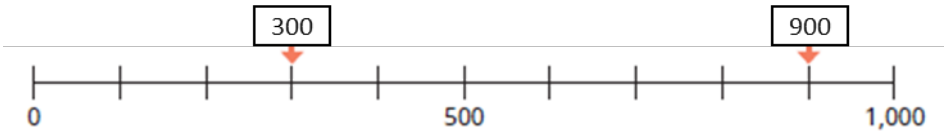
2 There are **4** hundreds, **6** tens and **2** ones.

The number is **462**

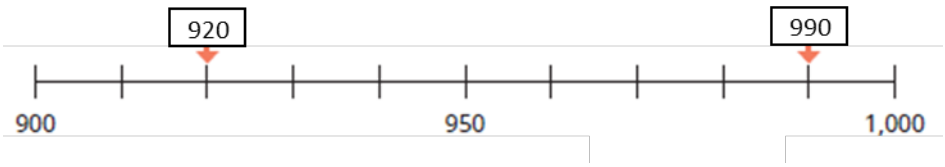
3a 231 = 200 + 30 + 1

3b 472 = 400 + 70 + 2

4a



4b



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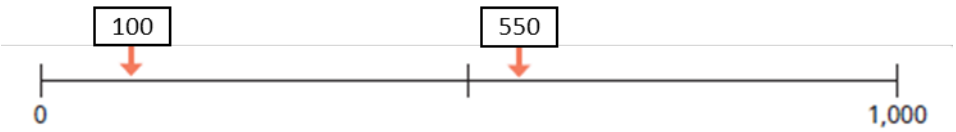
5 Answers will vary, for example,



6 Sam needs **8** boxes of pins.

Crack the code: interval

Real world maths: Answers will vary.

Talk it out: Answers will vary but may include, for example,

4, 000 = 3,000 + 1,000; four 1,000s + 0 100s + zero 10s + zero ones; 4,000 is 100 times greater 40;

1,000 smaller than 5,000

Autumn term Week 2

Let's remember

1 456 is made up of **4** hundreds, **5** tens and **6** ones.

2 XI

3 1,000g

4 9 × 3 = **27**

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Let's practise

1 There are **2** thousands, **3** hundreds, **6** tens and **3** ones.

The number is **2,363**

2a 5,341 = 5,000 + **300** + **40** + **1** (or any correct partitioning)

2b 3,607 = **3,000** + **600** + **7** (or any correct partitioning)

3 7,354 = **7,000** + **300** + **50** + **4**

7,354 = **6,000** + **1,300** + **50** + **4**

4

1,000 less	100 less	10 less	1 less	Starting Number	1 more	10 more	100 more	1,000 more
2,572	3,472	3,562	3,571	3,572	3,573	3,582	3,672	4,572
6,408	7,308	7,398	7,407	7,408	7,409	7,418	7,508	8,408
3,073	3,973	4,063	4,072	4,073	4,074	4,083	4,173	5,073

5 6,321

Crack the code: represents

Real world maths: Answers will vary

Talk it out: Answers will vary

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Autumn term Week 3

Let's remember

1 4,782 – 100 = **4,682**

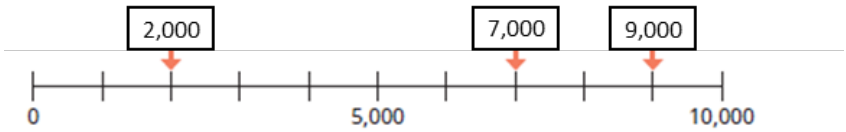
2 3,000

3 5

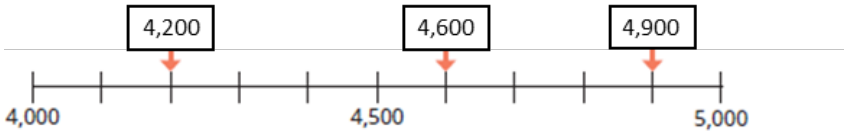
4 4 × 7 = **28**

Let's practise

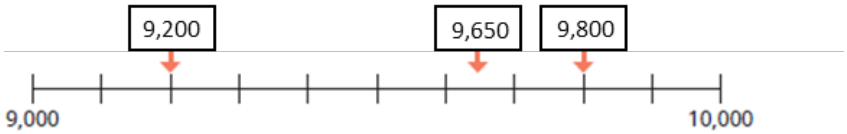
1a



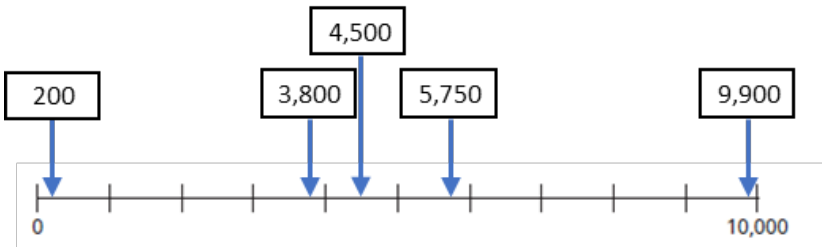
1b



1c



2



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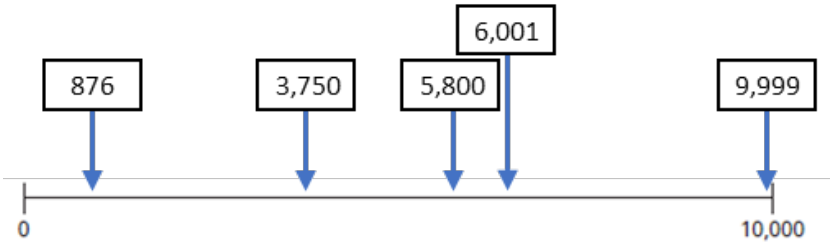
3

4 Answers may vary, for example,

5



6a 2,076 (<) 2,105

6b 3,856 (>) 1,912

6c 5,874 (<) 5,879

6d 1,002 m (>) 999 m

7 2,013

Crack the code: equal

Real world maths: Answers will vary.

Talk it out: Answers will vary.

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Autumn term Week 4

Let's remember

1 6,250 878 96 3,999

2 2,783 = 2,000 + **700** + **80** + **3** (or any correct partitioning)

3 £7 and 40p

4 6 × 8 = **48**

Let's practise

1a 99 **XCIX** 54 **LIV** 23 **XXIII** 49 **XLIX**

1b LVI **56** XC **90** LXXI **71** LIX **59**

2

137 is closer to **140**

137 rounds to **140**

3

5,420 is closer to **5,400**

5,420 rounds to **5,400**

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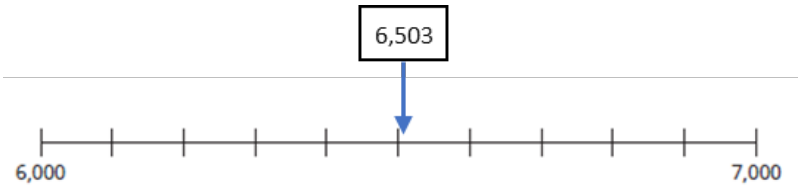
4



6,503 rounds to **7,000**

5a 30 150

680 2,390

5b 300 600

0 2,400

5c 7,000 4,000

1,000 0

6a 7,000

6b 7,349

Crack the code: placeholder

Talk it out: Answers will vary.

Real world maths: Answers will vary.

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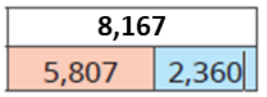
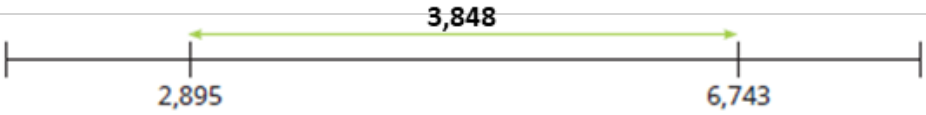
Autumn term - Addition and subtraction Knowledge organiser

		Th	H	T	O
		3	2	5	6
	+	2	5	3	2
		5	**7**	**8**	**8**

		Th	H	T	O
		3	4	5	4
	−	1	2	2	4
		2	**2**	**3**	**0**





Autumn term Week 5

Let's remember

1 80

2 1,971

3 27 minutes

4 3 × 8 = **6** × 4

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Let's practise

1a 2,365

1b 2,165

1c 8,365

1d 2,360

2a 4,351 + 3 = 4,354

4,351 + 30 = 4,381

4,351 + 300 = 4,651

4,351 + 3,000 = 7,351

2b 8,796 – 3 = 8,793

8,796 – 30 = 8,766

8,796 – 300 = 8,496

8,796 – 3,000 = 5,796

3a

	Th	H	T	O
	3	5	1	6
+	2	1	7	2
	5	**6**	**8**	**8**

3b

	Th	H	T	O
	4	8	5	7
+	5	0	3	1
	9	**8**	**8**	**8**

4 The exchanged 1 hasn't been added in the 10s column. The correct answer is **7896**

5 Mo scores **2,886** points.

6 The crate and the box have a total mass of **2,810g**

Crack the code: subtract

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Think it out:

There must be an exchange in the ones column because you can only have a 0 in the ones column if both numbers are 0 or they equal 10. As the star and the triangle cannot have the same value then the two digits must total 10, which means there is an exchange.

Talk it out: Answers may vary but you should start with the ones column.

Autumn term Week 6

Let's remember

1 3,276 + 1,407 = **4,683**

2 6,400

3 6

4 52 × 10 = **520**

Let's practise

1a

	Th	H	T	O
	2	1	3	3
+	5	7	8	2
	7	**9**	**1**	**5**

1b

	Th	H	T	O
	6	8	7	1
+		9	8	2
	7	**8**	**5**	**3**

1c

	Th	H	T	O
	4	8	2	5
+	3	2	9	5
	8	**1**	**2**	**0**

1d

	Th	H	T	O
		7	6	9
+	4	8	0	7
	5	**5**	**7**	**6**

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2a

	Th	H	T	O
	3	1	8	7
−	2	1	3	4
	1	**0**	**5**	**3**

2b

	Th	H	T	O
	3	1	0	7
−	1	1	0	6
	2	**0**	**0**	**1**

3 The tablet costs **£1,352**

4 Altogether Max and Mo run **7,249 m**

5 4,856

6 The distance from A–C is **4,160 m**

Crack the code: addition

Talk it out: Answers will vary.

Think it out: Answers will vary.

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Autumn term Week 7

Let's remember

1 2,856 – 1,371 = **1,485**

2 8,031 + 906 = **8,937**

3 5,000 + 700 + 40 + 6 = **5,746**

4 800 cm

Let's practise

1a

	Th	H	T	O
	5	2	4	1
–	3	4	0	2
	1	**8**	**3**	**9**

1b

	Th	H	T	O
	7	0	1	9
–	3	5	4	6
	3	**4**	**7**	**3**

1c

	Th	H	T	O
	6	7	0	8
–	3	5	4	2
	3	**1**	**6**	**6**

1d

	Th	H	T	O
	2	0	0	9
–		8	7	1
	1	**1**	**3**	**8**

2a

3,883	
2,576	1,307

2b

4,105	2,787
6,892	

2c

4,807	
3,154	1,653

2d

1,099	5,620
6,719	

3 The answer has been calculated by finding the difference between the digits in a column, taking the smaller digit away from the greater digit. The answer should have been calculated by taking the second number away from the first number and making an exchange.

The correct answer is **2,375**

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4a 538 + 99 = **637**

4b 538 – 99 = **439**

4c 2,425 + 999 = **3,424**

4d 2,425 – 999 = **1,426**

5 This calculation is correct.

6 3,277 miles

Crack the code: inverse

Think it out: Answers may vary.

Real world maths: Answers will vary. The total price is £6 and 93p.

Autumn term Week 8

Let's remember

1 2,614 – 1,328 = **1,286**

	2	6	1	4
–	1	3	2	8
	1	**2**	**8**	**6**

2 2,875 + 3,509 = **6,384**

	2	8	7	5
+	3	5	0	9
	6	**3**	**8**	**4**

3 1,624 = 1,000 + 500 + **120** + 4

4 $\frac{1}{2}$

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Let's practise

1a 24 squares

1b 20 squares

2a 23 squares

2b 27 squares

3 B, because it covers more space.

4 Answers will vary, but any 2 shapes with an area of 15 squares.

5 No, because the sticky notes don't cover the whole surface of the rectangle. There are gaps.

Crack the code: area

Real world maths: Answers will vary.

Talk it out: Answers will vary but the area of the table is always the same, but the units it is recorded in is different.

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Autumn term Week 9

Let's remember

1 4 squares

2 2,376 – 99 = **2,277**

3 986

4 The bag has a mass of **415 g**

Let's practise

1a

3	6	9	12	15	18	21	24	27	30	33

1b

12	18	24	30	36	42	48	54	60	66	72

1c

0	9	18	27	36	45	54	63	72	81	90

2a 5 × 3 = **15**

2b 6 × 5 = **30**

2c 7 × 6 = **42**

2d **36** = 12 × 3

2e **12** = 4 × 3

2f 6 × **11** = 66

3 £9 × 8 = £**72**

4a 24

4b 66

4c 7

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5a 15 ÷ 3 = **5**

5b 48 ÷ 6 = **8**

5c **2** = 6 ÷ 3

5d **42** ÷ 6 = 7

5e 9 = **27** ÷ 3

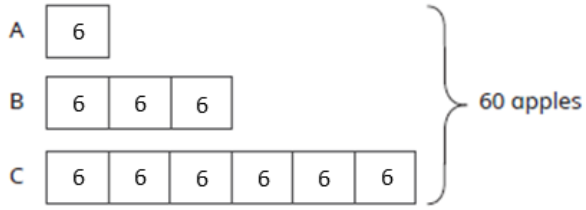
5f **72** ÷ 6 = 36 ÷ 3

6 42

Crack the code: commutative

Talk it out: Every 2nd multiple of 3 is in the 6 times-table. This pattern happens because 6 is double 3.

Think it out: Bag B contains **18** apples.



Autumn term Week 10

Let's remember

1 11 × 6 = **66**

2 10 squares

3 LVIII

4 $\frac{1}{5} + \frac{3}{5} = \mathbf{\frac{4}{5}}$

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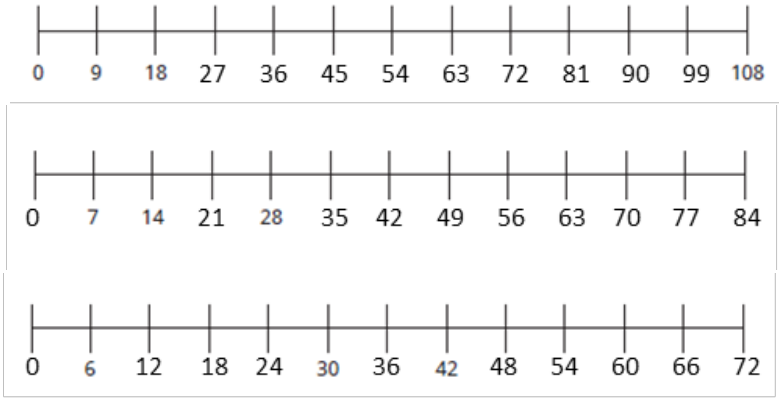
Let's practise

1



2a 5 × 7 = **35**

2b 3 × 9 = **27**

2c 12 × 6= **72**

2d 7 × 8 = **56**

2e **45** = 5 × 9

2f **33** = 3 × 11

3a 49 ÷ 7 = **7**

3b 24 ÷ 3 = **8**

3c 45 ÷ 9 = **5**

3d 63 ÷ 9 = **7**

3e **8** = 56 ÷ 7

3f 12 = 84 ÷ **7**

4 7 players × 9 teams = **63**

5 5 books × £6 = £30

4 caps × £9 = £36

8 mugs × £7 = £56

£30 + £36 = £56 = £122

No, Tommy does not have enough money. He needs £2 more.

6a 128 × 6 = **768**

6b 7 is one more than 6. So if 127 × 6 = 762, you need to add 127 more.

127 × 7 = **889**

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Crack the code: arrays

Think it out: Answers will vary but 12 × 9 = **108**

Real world maths: Answers will vary.

Autumn term Week 11

Let's remember

1 7 × 9 = **63**

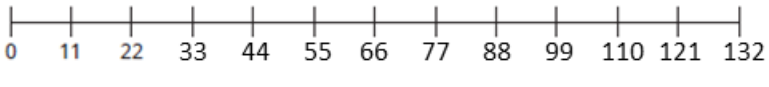
2 24 ÷ 6 = **4**

3 5,286 + 400 = **5,686**

4 Annie gives Ron **27** stickers.

Let's practise

1a



1b

2a 5 × 12 = **60**

2b 11 × 9 = **99**

2c 60 ÷ 12 = **5**

2d **77** = 11 × 7

2e 84 = 12 × **7**

2f **7** = 77 ÷ 11

2g 121 ÷ 11 = **11**

2h 9 × 12 = **108**

2i **11** × 5 = 55

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3a $11 \times 8 \,(=)\, 8 \times 10 + 1 \times 8$

3b $11 \times 4 + 12 \,(>)\, 4 \times 12$

4a 1

4b 12

5a $7 \times 1 = \mathbf{7}$

5b $0 \times 4 = \mathbf{0}$

5c $6 \times 7 = \mathbf{42}$

5d $8 \times 9 = \mathbf{72}$

6a $3 \times 4 \times 7 = \mathbf{84}$

6b $2 \times 9 \times 6 = \mathbf{108}$

6c $5 \times 8 \times 2 = \mathbf{80}$

6d $7 \times 9 \times 0 = \mathbf{0}$

7 Kim has **£44** more than Mo.

Crack the code: product

Real world maths:

Number of chickens	Number of horses
2	9
4	8
6	7
8	6
10	5
12	4

Think it out: Answers will vary, but $14 \times 12 = \mathbf{168}$; Answers will vary, but $18 \times 12 = \mathbf{216}$

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Autumn term Week 12

Let's remember

1 56 ÷ 7 = **8**

2 26 × 3 = **78**

3 7,750

4 It will end at **2:00 pm**

Let's practise

1a 3 × 5 × 2 = **30**

3 × 2 × 5 = **30**

2 × 5 × 3 = **30**

1b 8 × 7 × 0 = **0**

7 × 0 × 8 = **0**

0 × 7 × 8 = **0**

2a 3,251 + 4,065 = **7,316**

2b 5,271 – 1,103 = **4,168**

2c 6,209 + 683 = **6,892**

2d 2,875 – 421 = **2,454**

3a 5 × 7 = **35**

3b 21 ÷ 3 = **7**

3c 11 ÷ 1 = **11**

3d 17 × 0 = **0**

3e 12 × 9 = **108**

3f **56** = 8 × 7

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4

	Nearest 10	Nearest 100	Nearest 1,000
1,131	1,130	1,100	1,000
5,487	5,490	5,500	5,000
6,268	6,270	6,300	6,000
3,997	4,000	4,000	4,000
95	100	100	0
7,619	7,620	7,600	8,000

5 99

6a 3,205 + 999 (<) 3,205 + 1,003

6b 5,872 – 99 (>) 5,872 – 120

6c 3,195 + 2,875 (<) 2,874 + 5,803

6d 9,845 – 5,990 (=) 9,855 – 6,000

Crack the code: strategy

Think it out: The star has a value between 1,150 and 1,249

The triangle has a value between 6,500 and 7,499

So, the greatest possible difference = 6,349

And the smallest possible difference = 5,251

Real world maths: 3 coaches are need for the trip and there will be **10** spare seats.

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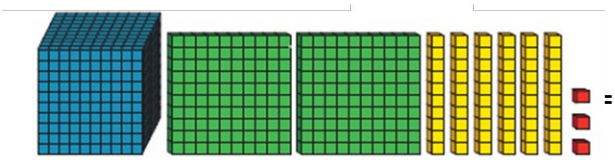
Autumn term Self-assessment

1 Place value:

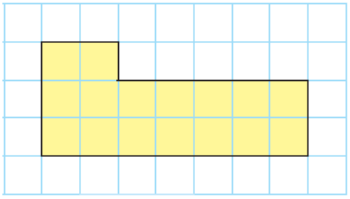


2 Addition and subtraction:

	Th	H	T	O
	7	0	1	9
−	3	5	4	6
	3	**4**	**7**	**3**

	Th	H	T	O
	3	5	1	6
+	2	1	7	2
	5	**6**	**8**	**8**

3 Area:



Area = **16** squares

Spring term Multiplication and division B Knowledge organiser

34 × 2 = 68

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Spring term Week 1

Let's remember

1 2 × 7 × 5 = **70**

2 12 × £11 = **£132**

3 **900** or **916** (or answers around this value)

4 3,287 = 3,000 + 200 + 80 + 7 (or any correct partitioning)

Let's practise

1a **1** × **12** = 12 (or 12 × 1 = 12)

3 × **4** = 12 (or 4 × 3 = 12)

2 × **6** = 12 (or 6 × 2 = 12)

1b 1, 12 2, 6 3, 4

1c 15 × 12 = **180**

2a 7 × 18 = **126**

2b 15 × 9 = **135**

2c 21 × 8 = **168**

2d 11 × 30 = **330**

3a 5 × 100 = **500**

3b 160 ÷ 10 = **16**

4a 3 × 10 = **30**

4b 7 × 100 = **700**

4c 100 × 9 = **900**

4d 12 × 10 = **120**

4e 10 × 21 = **210**

4f 18 × 100 = **1,800**

4g **2,100** = 21 × 100

4h **0** = 100 × 0

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5a Annie: 18 × 3 × 10 = **540**

Ron: 30 × 9 × 2 = **540**

5b Answers will vary.

Crack the code: grouping

Talk it out: Answers will vary.

Think it out: Answers will vary.

Spring term Week 2

Let's remember

1 32 × 100 = **3,200**

2 108 ÷ 12 = **9**

3 2,876 – 999 = **1,877**

4 2,000 + **1,600** + 40 + 9 = 3,649

Let's practise

1a 900 ÷ 1000 = **9**

1b 1,000 ÷ 100 = **10**

1c 1,600 ÷ 100 = **16**

1d 2,100 ÷ 100 = **21**

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2 3 × 8 = **24**

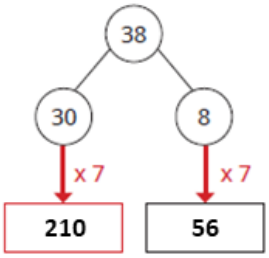
3 × 80 = **240**

3 × 800 = **2,400**

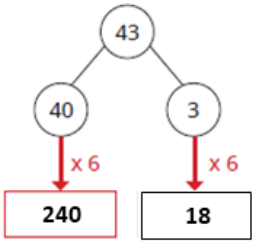
8 is multiplied by 10 to get 80 and the answer is also multiplied by 10.

8 has been multiplied by 100 to get 800 and the answer has also been multiplied by 100

3a 38 × 7 = **266**



3b 43 × 6 = **258**



4a

		3	4
x			3
	1	**0**	**2**

4b

	2	3	4
x			3
	7	**0**	**2**

Crack the code: multiply

Talk it out: Answers will vary.

Think it out: Answers will vary.

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Spring term Week 3

Let's remember

1 24 × 7 = **168**

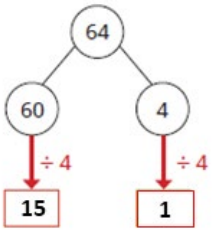
2 1,12 2,6 3,4

3 102

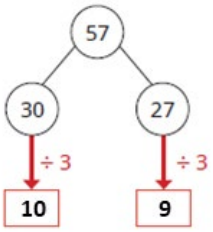
4 6,802

Let's practise

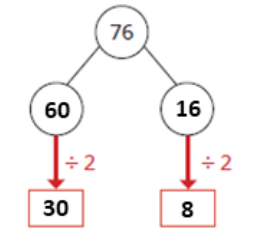
1a 64 ÷ 4 = **16**



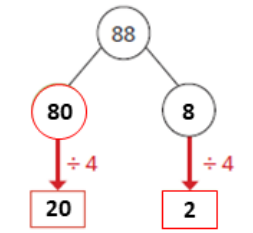
1b 57 ÷ 3 = **19**



1c 76 ÷ 2 = **38**



1d 88 ÷ 4 = **22**



2 Tiny has put the 100s counter in the wrong column and needs to make exchanges before carrying out the division.

The answer is 145 ÷ 5 = **29**

3a 342 ÷ 6 = **57**

3b 644 ÷ 7 = **92**

3c 528 ÷ 4 = **132**

3d 984 ÷ 8 = **123**

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4 There are **18 g** more rice than pasta in each box.

I divided by each amount by 7 to find how much rice and pasta in each box (rice: 581 ÷ 7 = 83 g; pasta 455 ÷ 7 = 65 g). Then I subtracted to find the difference: 83 g – 65 g = 18 g

Crack the code: remainder

Real world maths: March has 31 days, so 31 × 104 miles = **3,224 miles**

Think it out: She has could have 8 hats, gloves and scarfs.

Spring term Length and perimeter Knowledge organiser

7 km 200 m	2 km 400 m
9 km **600** m	

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Spring term Week 4

Let's remember

1 91 ÷ 7 = **13**

2 17 × 30 = **510**

3 9 × **8** = 72

4 5,000

Let's practise

1a

1 km	
720 m	**280** m

1b

2 km 400 m	1 km 100 m
3 km	**500** m

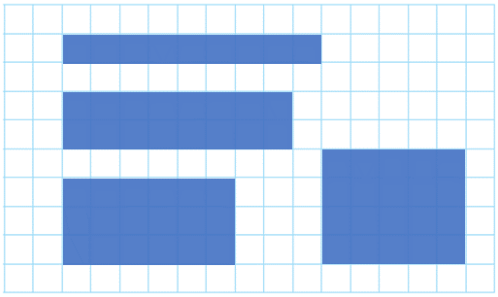
2

Distance (km)	Distance (m)
3	**3,000**
8	8,000
$4\frac{1}{2}$	**4,500**
$\mathbf{9\frac{1}{4}}$	9,250

3a 34 cm

3b 26 cm

4 Any two rectangles of 1 × 9, 2 × 8, 3 × 7 or 4 × 6 squares.



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5a 20 cm 5b 40 cm

6 The sides could be 1 cm × 7 cm, 2 cm × 6 cm, 3 cm × 5 cm or 4 cm × 4 cm.

Crack the code: length

Think it out: Answers will vary.

Spring term Week 5

Let's remember

1 26 cm

2 429 ÷ 3 = **143**

3 7 × 8 heptagons = **56** sides

4 3,871 + 5,062 = **8,933**

Let's practise

1a 10 cm 1c 70 cm 1d 90 cm

1b 21 cm

2a 54 cm 2b 82 cm

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3a 156 mm

3b 390 cm

4a triangle = 21 cm

4b pentagon = 35 cm

4c square = 28 cm

4d octagon = 56 cm

5a triangle = 160 mm

5b pentagon = 96 mm

5c square = 120 mm

5d octagon = 60 mm

Crack the code: perimeter

Think it out: The regular hexagon will have all sides 3 cm long. The irregular hexagon will have side lengths that total 18 cm.

Talk it out: The total length of the sides marked by the vertical arrows is equal to 46 cm and that the total length of the sides marked by the horizontal arrows is equal to 84 cm.

46 cm + 46 cm + 84 cm + 84 cm = 260 cm

Spring term Week 6

Let's remember

1 60 cm

2 5,000 m

3 2,560 × 0 = **0**

4 1,875 – 1,309 = **566**

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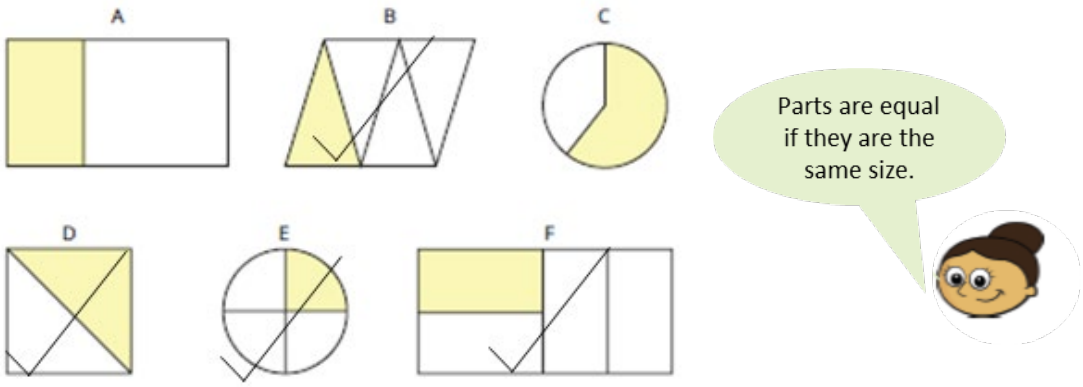
Let's practise

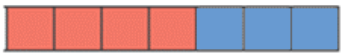
1



2a

$\frac{2}{3}+\frac{1}{3}=1$

2b



$\frac{4}{7}+\frac{3}{7}=1$

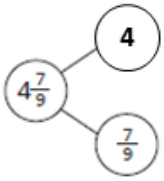
3a

0	$\frac{1}{3}$	$\frac{2}{3}$	1	$1\frac{1}{3}$	$1\frac{2}{3}$	2

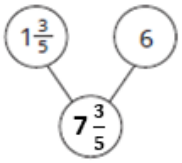
3b

1	$1\frac{1}{8}$	$1\frac{2}{8}$	$1\frac{3}{8}$	$1\frac{4}{8}$	$1\frac{5}{8}$	$1\frac{6}{8}$	$1\frac{7}{8}$	2	$2\frac{1}{8}$

4a



4b



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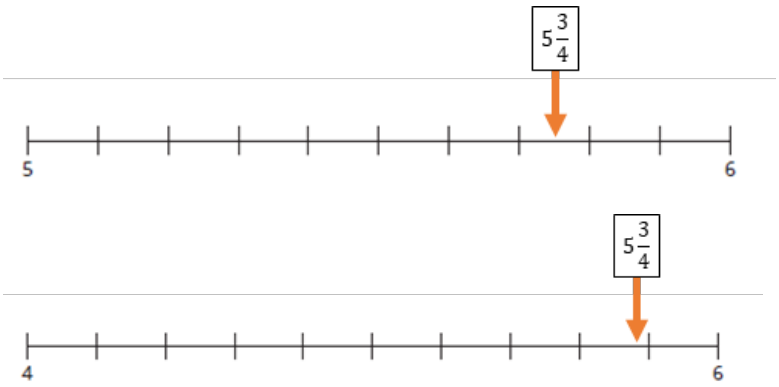
5



6a $2\frac{5}{8} = 2 + \mathbf{\frac{5}{8}}$

6b $2\frac{5}{8} = 1 + \mathbf{1\frac{5}{8}}$

6c $2\frac{5}{8} = 2 + \frac{1}{8} + \mathbf{\frac{4}{8}}$

6d $2\frac{5}{8} = 1\frac{3}{8} + \mathbf{1\frac{2}{8}}$ (or $\mathbf{1\frac{1}{4}}$)

Crack the code: fraction

Talk it out: It may be partitioned in a variety of ways.

Real world maths:

They eat 5 whole pizzas.

There are 3 slices left over.

They could divide each remaining slice in half.

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Spring term Week 7

Let's remember

1 $\mathbf{\frac{8}{8}} = 1$

2 6 × 12 mm = **72 mm**

3 370 ÷ 10 = **37**

4 3,091 – 1,456 = **1,635**

Let's practise

1a $2\frac{3}{5}$ (<) $2\frac{4}{5}$

1b $\mathbf{3\frac{5}{8}}$ (>) $\mathbf{2\frac{7}{8}}$

2a $\frac{3}{3}$ = **1**

2b $\frac{6}{3}$ = **2**

2c $\frac{12}{4}$ = **3**

3a $\frac{8}{3} = \mathbf{2\frac{2}{3}}$

3b $\frac{13}{4} = \mathbf{3\frac{1}{4}}$

4a $3\frac{5}{7} = \mathbf{\frac{26}{7}}$

4b $5\frac{3}{8} = \mathbf{\frac{43}{8}}$

5 $\frac{12}{6}$ $2\frac{1}{8}$ $3\frac{2}{5}$ $\frac{19}{5}$ $\frac{21}{5}$

Crack the code: compare

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Think it out: Answers will vary, for example, $\frac{44}{5}$ $(8\frac{4}{5})$ or $\frac{31}{4}$ $(7\frac{3}{4})$

Talk it out: Answers will vary but, for example,

First, you multiple the whole number by the denominator.

Then you add that number to the numerator.

Next, you write that new numerator over the original denominator.

Spring term Week 8

Let's remember

1 $\frac{9}{4}$

2 $\frac{5}{7}, \frac{6}{7}, \frac{7}{7}, \mathbf{\frac{8}{7}}, \mathbf{\frac{9}{7}}$

3 23 × 8 = **184**

4 2,603 – 400 = **2,203**

Let's practise

1a $\frac{1}{2} = \mathbf{\frac{2}{4}}$ and $\mathbf{\frac{4}{8}}$

1b $\frac{1}{4} = \mathbf{\frac{2}{8}}$

1c $\frac{3}{4} = \mathbf{\frac{6}{8}}$

2 Answers may vary, for example, $1\frac{1}{2} = 1\frac{3}{6}$ $2\frac{1}{6} = 2\frac{2}{12}$ $2\frac{4}{6} = 2\frac{8}{12}$

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3a $\frac{3}{7}+\frac{1}{7}=\mathbf{\frac{4}{7}}$

3b $\frac{1}{9}+\frac{4}{9}=\mathbf{\frac{5}{9}}$

3c $\frac{3}{5}+\frac{1}{5}=\mathbf{\frac{4}{5}}$

4 Max reads $\mathbf{\frac{3}{13}}$ of his book on Wednesday.

5a $9\frac{8}{9}+\frac{5}{9}=\mathbf{10\frac{4}{9}}$

5b $6\frac{7}{13}+\frac{8}{13}=\mathbf{7\frac{2}{13}}$

Crack the code: equivalent

Talk it out: Answers will vary.

Think it out: $\frac{15}{7}=\mathbf{2\frac{1}{7}}$

Answers will vary, for example, $\frac{1}{7}+\frac{14}{7}$; $\frac{2}{7}+\frac{13}{7}$; $\frac{3}{7}+\frac{12}{7}$; $\frac{4}{7}+\frac{11}{7}$; $\frac{5}{7}+\frac{10}{7}$; $\frac{6}{7}+\frac{9}{7}$; $\frac{7}{7}+\frac{8}{7}$

Spring term Week 9

Let's remember

1 $\frac{3}{5}+\frac{1}{5}=\mathbf{\frac{4}{5}}$

2 $\frac{17}{3}=\mathbf{5\frac{2}{3}}$

3 84 ÷ 4 = **21**

4 2 × 6 = **72** ÷ 6

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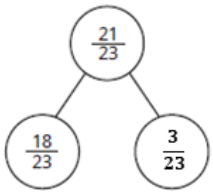
Let's practise

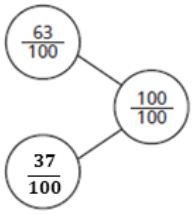
1a $\frac{3}{7} - \frac{1}{7} = \mathbf{\frac{2}{7}}$

1b $\frac{4}{9} - \frac{2}{9} = \mathbf{\frac{2}{9}}$

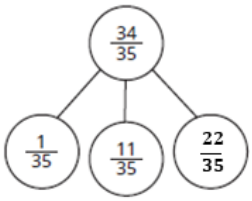
2a



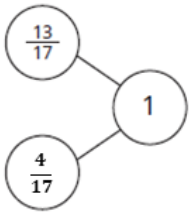
2b



2c



2d



3a $1 - \frac{3}{5} = \mathbf{\frac{2}{5}}$

$2 - \frac{3}{5} = \mathbf{1\frac{2}{5}}$

$3 - \frac{3}{5} = \mathbf{2\frac{2}{5}}$

$4 - \frac{2}{5} = \mathbf{3\frac{2}{5}}$

3b $5 - \frac{1}{19} = \mathbf{4\frac{18}{19}}$

$5 - \frac{2}{19} = \mathbf{4\frac{17}{19}}$

$5 - \frac{3}{19} = \mathbf{4\frac{16}{19}}$

$5 - \frac{4}{19} = \mathbf{4\frac{15}{19}}$

4 Dora has $\mathbf{1\frac{2}{3}}$ **km** left to run.

5 On Thursday, the chef uses $\mathbf{3\frac{3}{5}}$ **kg** of potatoes.

6 Answers may vary, for example, $5\frac{3}{7} - \frac{2}{7} = 5\frac{5}{7} - \frac{4}{7}$ and $5\frac{6}{7} - \frac{4}{7} = 5\frac{4}{7} - \frac{2}{7}$

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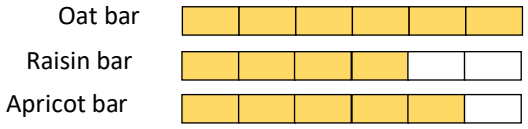
Crack the code: subtract

Real world maths: Answers may vary, for example, $\frac{6}{6}+\frac{4}{6}+\frac{5}{6}=\frac{15}{6}=2\frac{3}{6}=2\frac{1}{2}$



Talk it out: Answers will vary, for example, Kim has subtracted the first numerator from the second numerator. Kim should have made subtracted the second numerator from the first numerator making an exchange. The correct answer is $3\frac{1}{5}-\frac{4}{5}=\mathbf{2}\frac{\mathbf{3}}{\mathbf{5}}$

Spring term Week 10

Let's remember

1 $5-\frac{2}{3}=\mathbf{4}\frac{\mathbf{1}}{\mathbf{3}}$

2 $5\frac{2}{5}+\frac{1}{5}=\mathbf{5}\frac{\mathbf{3}}{\mathbf{5}}$

3 8 km

4 81 ÷ 9 = **9**

Let's practise

1a $\frac{6}{10}$ 0.6

1b $\frac{3}{10}$ 0.3

1c $\frac{2}{10}$ 0.2

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2 A = $\frac{2}{10}$ 0.2 C = $\frac{7}{10}$ 0.7

B = $\frac{5}{10}$ 0.5 D = $\frac{9}{10}$ 0.9

3a Tiny hasn't exchanged 10 tenths for 1 whole.

3b 1

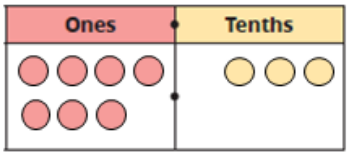
4a There is **1** one and **8** tenths.

The number is **1.8**

4b There are **5** ones and **3** tenths.

The number is **5.3**

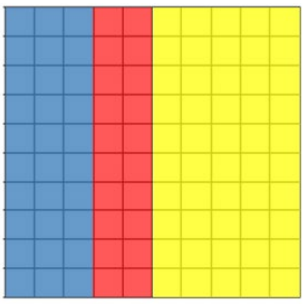
5a 7.3



5b 2.6

Crack the code: decimal

Think it out:



$\frac{5}{10} = \frac{1}{2}$ or **0.5** of the hundred square is shaded yellow.

Talk it out: Answers will vary.

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Spring term Week 11

Let's remember

1 $\frac{7}{10}$ = **0.7**

2 $5\frac{3}{4} - 3 = \mathbf{2\frac{3}{4}}$

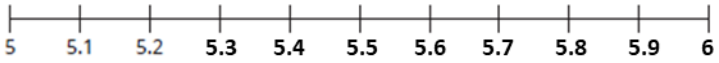
3 8 cm

4 63 ÷ **7** = 9

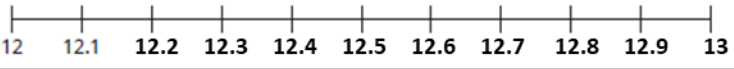
Let's practise

1a

1b



1c



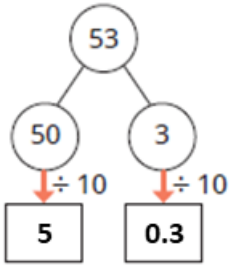
2a 0.3

2b 0.5

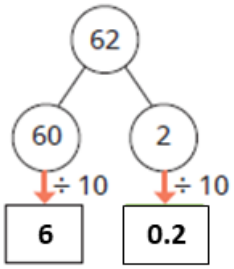
2c 0.7

2d 0.1

3a 53 ÷ 10 = **5.3**



3b 62 ÷ 10 = **6.2**



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4a 3 ÷ 10 = **0.3**

4b 50 ÷ 10 = **5**

4c **7.1** = 71 ÷ 10

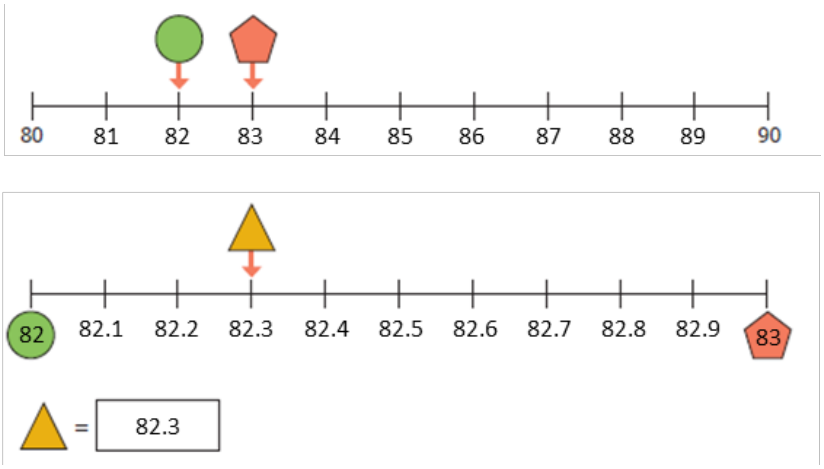
4d **1.2** = 12 ÷ 10

4e 6 ÷ **10** = 0.6

4f 4.8 = **48** ÷ 10

Crack the code: divisions

Think it out:



Talk it out: Answers may vary, for example,

No, I don't agree because if a 2-digit number ends in 0 and you divide by 10 your answer will be a 1-digit whole number.

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Spring term Week 12

Let's remember

1 38 ÷ 10 = **3.8**

2 $\frac{9}{10}$

3 $\frac{17}{6}$

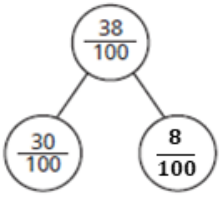
4 11 ÷ 11 = **1**

Let's practise

1a $\frac{42}{100}$ 0.42

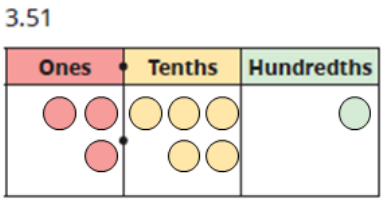
1b $\frac{38}{100}$ 0.38

2a

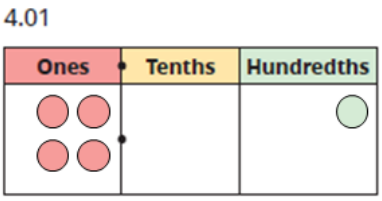


2b

3a



3b



4a 3 ÷ 100 = **0.03**

4b 8 ÷ 100 = **0.08**

4c **0.07** = 7 ÷ 100

4d **1** ÷ 100 = 0.01

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5a 23 ÷ 100 = **0.23**

5b 58 ÷ 10 = **5.8**

5c **0.61** = 61 ÷ 100

5d 28 ÷ **10** = 2.8

5e **0.14** = 14 ÷ 100

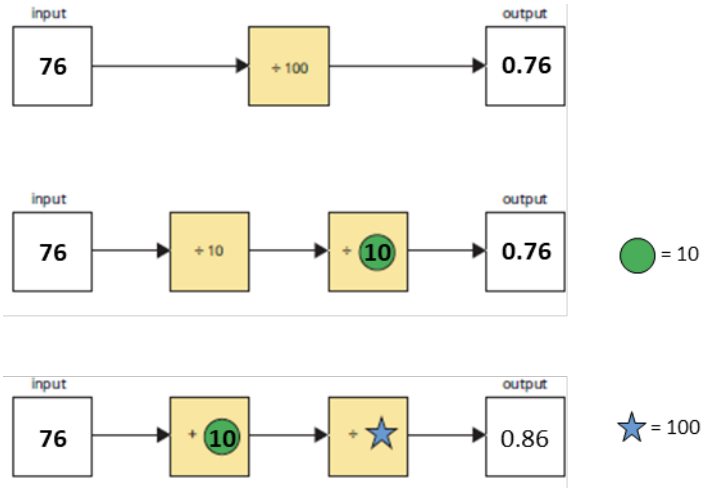
5f 98 ÷ 10 = **9.8**

6 76 ÷ 10 ÷ 10 = 76 ÷ 100 **TRUE**

76 ÷ 100 = 100 ÷ 76 **FALSE**

Crack the code: tenths

Think it out:



Real world maths: Answers will vary, for example, money; litres of petrol at the petrol station; temperature on a thermometer; temperature on a thermostat; grams of sugar on a food packet; distances on satnav.

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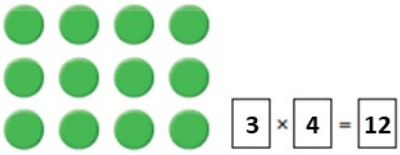
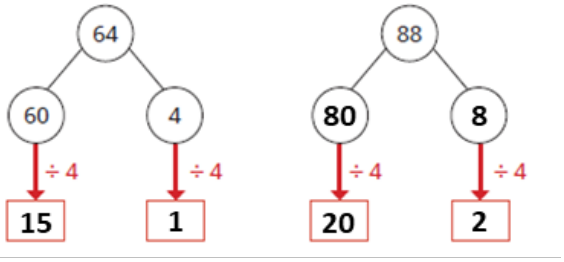
Spring term Self-assessment

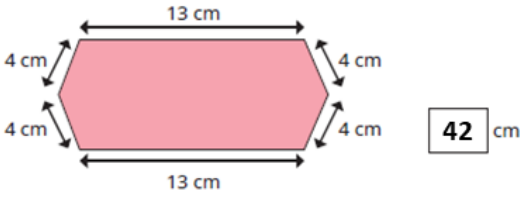
1 Multiplication and division:



2 Multiplication and division:



3 Perimeter:



4 Fractions: $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$ $\frac{5}{7} - \frac{3}{7} = \frac{2}{7}$

5 Decimals: There is **1** one and **4** tenths.

The number is **1.4**

There are **3** ones and **5** tenths.

The number is **3.5**

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Summer term Week 1

Let's remember

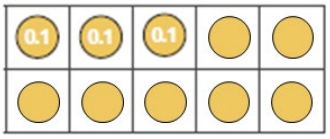
1 0.73

2 7 ÷ 10 = **0.7**

3 $2\frac{3}{5}$

4 28 × 10 = **280**

Let's practise

1a 

0.3 + **0.7** = 1

1b

0.9 + **0.1** = 1

2a 0.32 + **0.68** = 1

2b **0.59** + **0.41** = 1

3a 4.23

3b 4.03

4a 5.23 = 4 + **1.2** + **0.03**

4b 5.23 = **5** + 0.2 + **0.03**

5 Answers will vary but any correct partitioning, for example,

5a 1.56 = 1 + 0.5 + 0.06

1.56 = 1 + 0.4 + 0.16

1.56 = 1.2 + 0.3 + 0.06

5b 2.81 = 2 + 0.8 + 0.01

2.81 = 2.5 + 0.3 + 0.01

2.81 = 1 + 1.8 + 0.01

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Crack the code: hundredths

Talk it out: They are both correct. Max represented 0.99 as shaded squares and Sam represented it as unshaded squares.

Think it out: shaded = 0.21; unshaded = 0.79

Summer term Week 2

Let's remember

1 0.35 + **0.65** = 1

2 37 ÷ 100 = **0.37**

3 $\frac{2}{4}$ and $\frac{4}{8}$ (Other answers may vary)

4 10 × 46 = **460**

Let's practise

1a 3.42 (<) 5.42

1b 2.16 (<) 2.37

2a 5.83 (>) 2.83

2b 4.02 (<) 4.09

2c 12.6 (>) 12.09

2d 16.37 (>) 8.37

2e 9.63 (<) 9.73

2f 42.57 (>) 38.99

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3a 3.01 3.05 3.09 3.12 3.91

3b 4.07 4.53 4.68 4.71 4.93

4a 3.2 is closer to **3** than **4**

3.2 rounds to **3** to the nearest whole number.

4b 3.7 is closer to **4** than **3**

3.7 rounds to **4** to the nearest whole number.

4c 3.5 is the same distance from **3** as it is from **4**

3.5 rounds to **4** to the nearest whole number.

5 7 6 6 7

Crack the code: whole

Real world maths: Answers will vary.

Think it out:

The smallest number is 3.07

The greatest number 87.03

A number with 1 decimal place that rounds to 8 to the nearest whole number, for example, 8.3 and 7.8

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Summer term Week 3

Let's remember

1 0.09 0.1 0.23 0.45 0.7

2 0.83 = **0.8** + **0.03** (or any correct partitioning)

3 $\frac{3}{7} + \frac{\mathbf{2}}{7} = \frac{5}{7}$

4 48 ÷ 4 = **12**

Let's practise

1a £3.76

1b £14.89

1c £30.99

2a £1 = **100p**

2b £2 = **200p**

2c £1.42 = **142p**

2d £5.99 = **599p**

3a 247p = **£2.47**

3b 630p = **£6.30**

3c 987p = **£9.87**

3d 1,000p = **£10.00**

4a £12.08 (**<**) £12.90

4b £18.57 (**>**) £9.57

4c 506p (**>**) £4.22

4d £8.23 (**=**) 823p

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5 Annie has an amount that is between Ron's 763p (£7.63) and Mo's £8.95.

A multiple of 5 between £7.64 and £8.94 is any amount where the pence ends in a 5 or a 0, for example, £7.65, £7.80 or £8.50.

Crack the code: coins

Real world maths: Answers will vary.

Think it out:

The greatest amount of money Max could have is £6.30p

The smallest amount of money Max could have is 75p

Answers will vary, for example,

5 × 1p = 5p, 10 × 2p = 20p, 9 × 50p = £4.50, 2 × 10p = 20p, 1 × 5p = 5p

£4.50 + 20p + 20p + 5p + 5p = £5

Summer term Week 4

Let's remember

1 £5.26

2 1

3 0.39

4 26 cm

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Let's practise

1a £4.99 £4.09 £4.44 £4.82 £4.12 £4.36

1b Answers can be any amount between £6.01 and £6.49

1c Answers can be any amount between £7.51 and £7.99

2a Tiny needs to look at the pence amounts as well as the pound amounts only. The price of the book is closer to £4 and the cost of the car is closer to £3 so the total cost is closer to £7

2b £6

3a Max has **£11.88**

3b Whitney has **£4.60**

4a £2.40 + £3.12 = **£5.52**

4b £8.70 − £1.50 = **£7.20**

4c **£12.82** = £3 + £9.82

4d **£0.24** = £1 − £0.76

5 A skateboard costs £25

A trick scooter cost 3 × £25 = £75

A bicycle costs £18 + £75 = £93

The difference between the cost of a bicycle and a skateboard is £93 − £25 = **£68**

Crack the code: pounds

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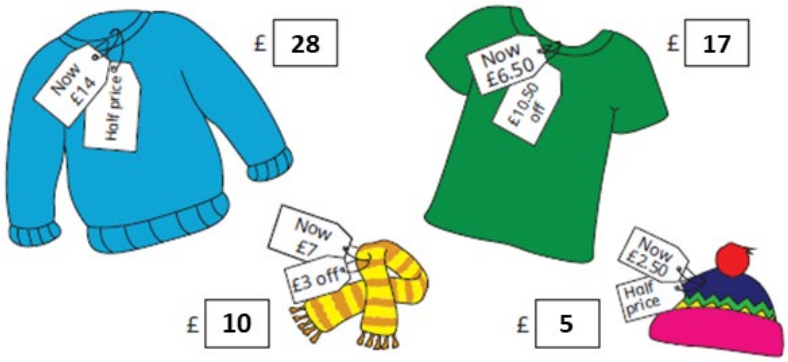
Real world maths:



Total before the sale: £28 + £10 + £17 + £5 = **£60**

Sale = £14 + £7 + £6.50 + £2.50 = **£30** (or you could add the savings £14 + £3 + £10.50 + £2.50 = £30)

You would save £60 − £30 = **£30**

(Or you could add the savings £14 + £3 + £10.50 + £2.50 = £30)

Think it out: Ron raised £150, Whitney raised £250 and Eva raised £50

Summer term Week 5

Let's remember

1 £2.64 + £8.11 = **£10.75**

2 £7

3 31 ÷ 10 = **3.1**

4 135 cm

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Let's practise

1a 31

1b 365

1c 35

1d 30

1e 366

1f 30

2a **48 hours** = 2 days

2b 5 minutes = **300 seconds**

2c **600 minutes** = 10 hours

2d 1 week = **168 hours**

2e **24 hours** = 1 day

2f 1 hour = **3,600 seconds**

3 91 days

4a 500 minutes (>) 500 seconds

4b 320 seconds (>) 4 minutes

4c 96 hours (<) 5 days

4d 2.5 hours (=) 150 minutes

4e 6 weeks (<) 2 months

4f $9\frac{1}{2}$ (>) 560 seconds

5a 2052, 2056, 2060

5b No, 2098 won't be a leap year because it is 50 years after 2048 and 50 isn't a multiple of 4

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6a Max run 1 km in 6.5 minutes = 390 seconds

Tommy runs 1 km in 370 seconds

Dora runs 1 km in 5 minutes and 28 seconds = 328 seconds

Dora runs 1 km in the quickest time.

6b Dora is **62 seconds** or **1 minute 2 seconds** quicker than Max.

Crack the code: hours

Real world maths: Answers will vary.

Think it out: Answers will vary.

Summer term Week 6

Let's remember

1 72 hours

2 £6.90

3 $\frac{29}{100}$

4 $3 + \frac{7}{11} = \mathbf{3\frac{7}{11}}$

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Let's practise

1a

12-hour		24-hour
7 : 00	AM	7 : 00

1b

12-hour		24-hour
9 : 30	AM	9 : 30

2a

12-hour		24-hour
7 : 00	PM	19 : 00

2b

12-hour		24-hour
9 : 30	PM	21 : 30

3a 5 : 15

3b 18 : 30

3c 12 : 00

3d 00 : 00

3e 2 : 45

3f 23 : 59

4 The film finishes at 21 : 13

5 No, Mr Ali will not be home in time. He will miss the first **7 minutes**.

6 Jack spends **435 minutes** in school.

Crack the code: analogue

Real world maths: Answers will vary.

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Summer term Week 7

Let's remember

1 15 : 45

2 63 days

3 314 × 6 = **1,884**

4 $\frac{21}{4}$

Let's practise

1a 0.8

1b 0.3

1c 0.32

1d 0.38

1e 0.85

1f 0.75

1g 0.92

1h 0.07

1i 0.99

2a £0.60 + **£0.40** = £1

2b £0.38 + **£0.62** = £1

2c **£0.25** + £0.25 = £1

2d £1 = **£0.59** + £0.41

2e £1 = £0.29 + **£0.71**

2f £0.20 + £0.57 + **£0.23** = £1

3a 18.2 rounds to **18**

3b 18.7 rounds to **19**

3c 18.53 rounds to **19**

3d 18.09 rounds to **18**

3e 18.61 rounds to **19**

3f 18.5 rounds to **19**

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4a Nijah is at the office for **8 hours and 8 minutes**.

4b Nijah spends **6 hours and 43 minutes** working.

5 Amir has **£255**; Eva has **£425**; and Alex has **£85**

Crack the code: confident

Real world maths: Answers will vary.

Think it out: Answers will vary.

Summer term Week 8

Let's remember

1 7 : 23 pm

2 00 : 38

3 1 = 0.2 + **0.8**

4 $\frac{3}{5} + \frac{4}{9} + \frac{2}{5} + \frac{5}{9} = \mathbf{2}$

Let's practise

1a See-saw

1b Slide

1c 180 degree turn

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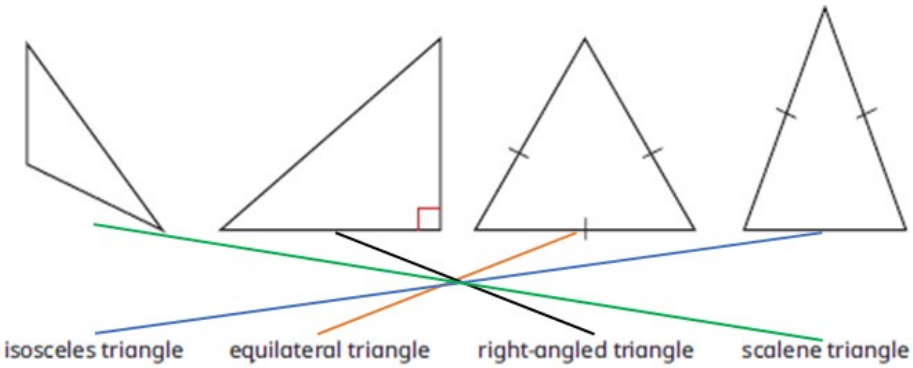
2a acute 2b acute 2c obtuse 2d right

3a Answers will vary but should be between the 1st and last angles in the set.

3b Answers will vary but should be between greater than the 2nd angle in the set.

4



5 26 cm or 28 cm

Crack the code: turn

Think it out: No, it is not possible. If one side length is 10 cm then the other two need to total to more than 10 cm to create a triangle.

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Summer term Week 9

Let's remember

1 acute

2 0.75

3 0.64 = 0.5 + **0.14**

4 $\frac{7}{17}$

Let's practise

1a rectangle

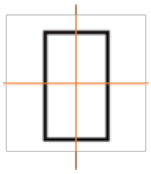
1b parallelogram

1c square

1d rhombus

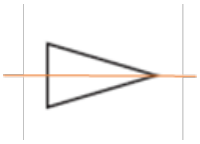
2

3a

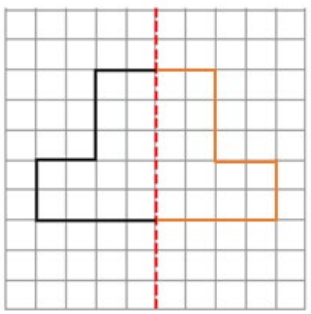


3b

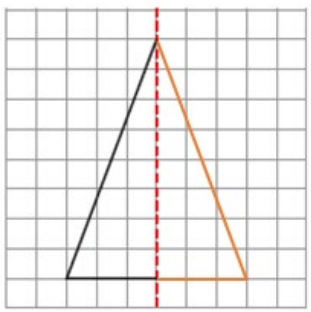
3c



4a



4b



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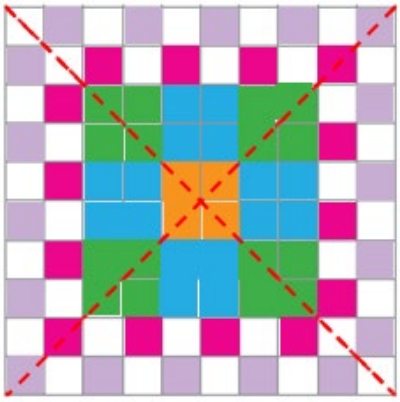
5 

Crack the code: face

Real world maths: Answers will vary.

Think it out: Answers will vary.

Summer term Week 10

Let's remember

1 4

2 B

3 0.6

4 $\frac{7}{10}$

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Let's practise

1a 2

1b 15

1c 17

1d

Colour	Number of children
Red	
Blue	
Green	
Pink	
Other	

Key: = 4 children

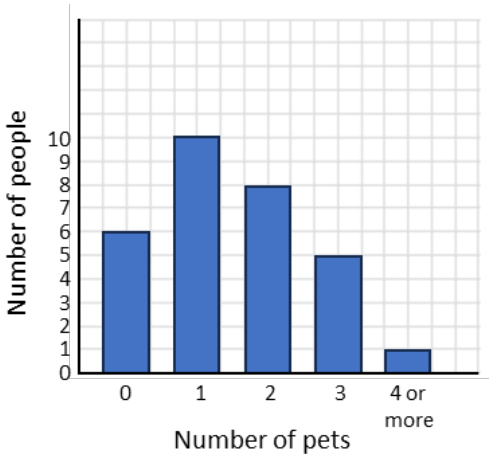
2a Football

2b 4

2c 7

2d **44** children were asked in total.

3



(Bar chart may vary depending on the scale that is chosen.)

Crack the code: graph

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Talk it out: Mo's choice of key is not a good idea because 3 is a small number and he will need to display lots of cakes to show how many are made each day. Only 2 of the totals are divisible by 3 so he would also need to draw part cakes. A key of 5 is a better choice because all the amounts are multiples of 5. The most cakes he would have to display would be 7.

Think it out: Answers may vary, for example,

The label on the vertical axis is not centred.

None of the bars is labelled.

The label on the horizontal axis is not centred.

Part of the gridline is missing.

Summer term Week 11

Let's remember

1 7

2 square

3 £7.32

4 40 ÷ 10 ÷ 10 = **0.4**

Let's practise

1a Tiny recorded the coordinate on the y-axis before the coordinate on the x-axis.

The correct coordinate for B is (2, 4).

1b A (5, 5) E (10, 2)

C (3, 9) F (7, 0)

D (9, 5) G (0, 6)

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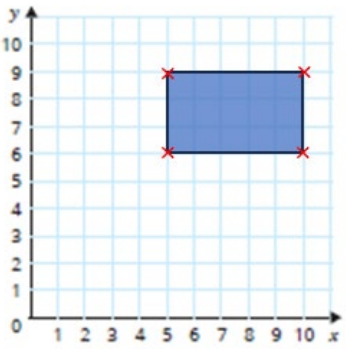
2a

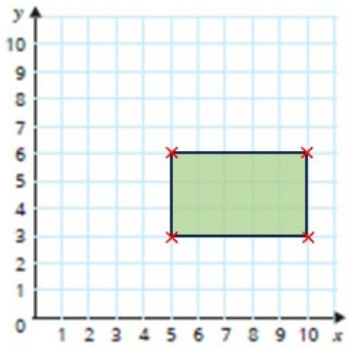
2b **A** and **F** lie on the same horizontal line.

2c **B** and **E** lie on the same vertical line.

3a D (9, 8)

3b (5, 9) and (10, 9), or (5, 3) and (10, 3)





Crack the code: grid

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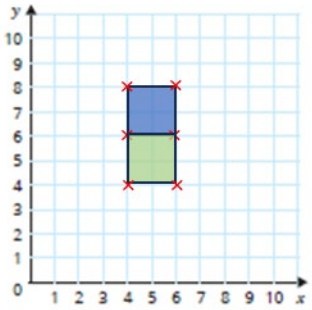
Think it out: There are two possible answers: (4, 4) and (6, 4) or (4, 8) and (6, 8).



There many more possibilities for the quadrilateral because the other sides can be different lengths and it does not need to have 4 right angles.

Summer term Week 12

Let's remember

1 (3, 5)

2 8

3 £16.41

4 0.87

Let's practise

1

Point	Original coordinates	Translation	New coordinates
A	(5, 5)	3 right and 2 up	(8, 7)
B	(3, 9)	1 left and 5 down	(2, 4)
C	(10, 2)	2 left and 0 up	(8, 2)
D	(7, 0)	7 left and 0 up	(0, 0)

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2a A to B: 4 right

A to C: 2 down

D to E: 3 right and 1 up

F to E: 5 left and 2 down

H to G: 8 right and 1 up

2b B to A: 4 left

C to A: 2 up

E to D: 3 left and 1 down

E to F: 5 right and 2 up

G to H: 8 left and 1 down

3 Point P (5, 23)

Crack the code: axis

Talk it out: Answers will vary.

Think it out: Possible coordinates for Point M: (2, 3), (2, 7), (6, 3) and (6, 7).

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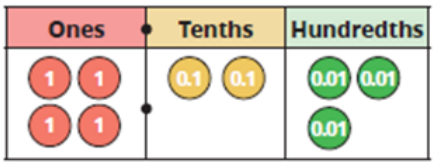
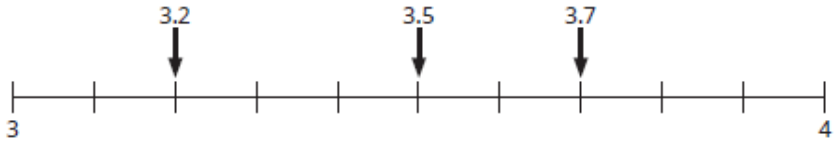
Summer term Self-assessment

1 Decimals:



4.23

2 Decimals:



3.2 rounds to **3** to the nearest whole number.

3.7 rounds to **4** to the nearest whole number.

3.5 rounds to **4** to the nearest whole number.

3 Money: £3.26

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