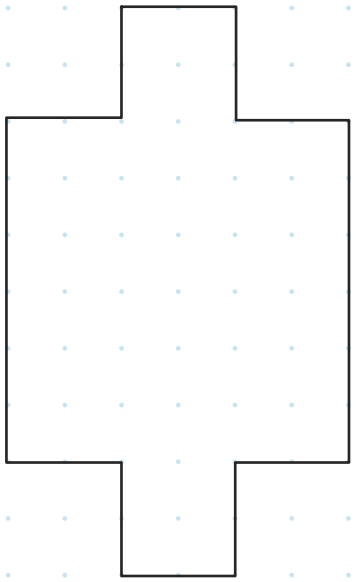
1. Draw all the lines of symmetry on this shape.



2. Sara is going on holiday. She has to travel 480 km by car. How many miles will she travel?

Use 8km = 5 miles.

3. 1/7 of a number is 27.

What is the number?

4. Tick the fractions that are equal to 60%.

$\frac{3}{5}$ ☐

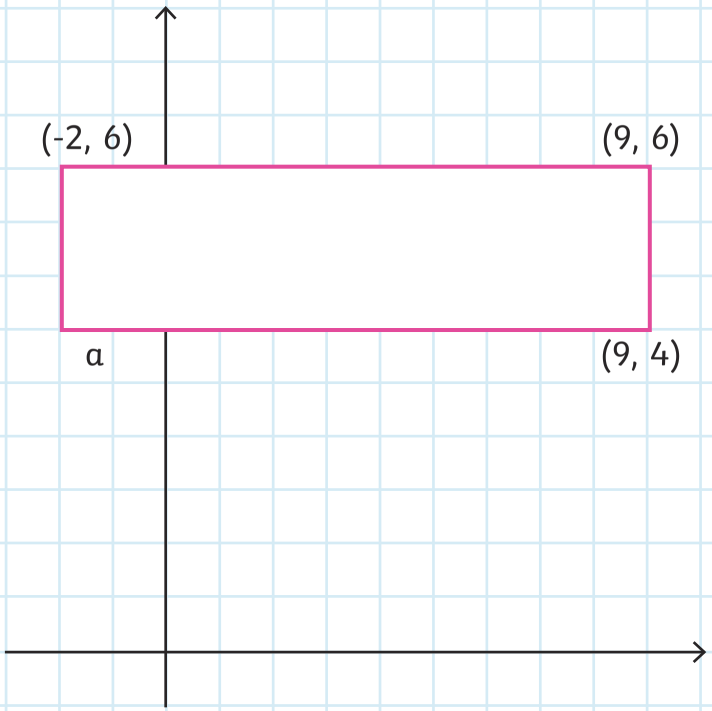
$\frac{6}{8}$ ☐

$\frac{1}{6}$ ☐

$\frac{9}{15}$ ☐

$\frac{6}{10}$ ☐

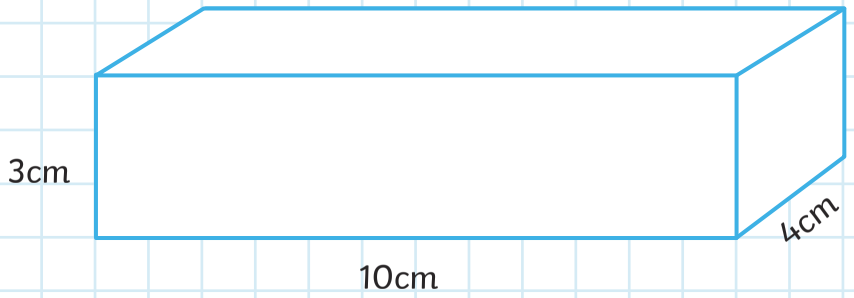
5. Fill in the missing coordinates for point a.



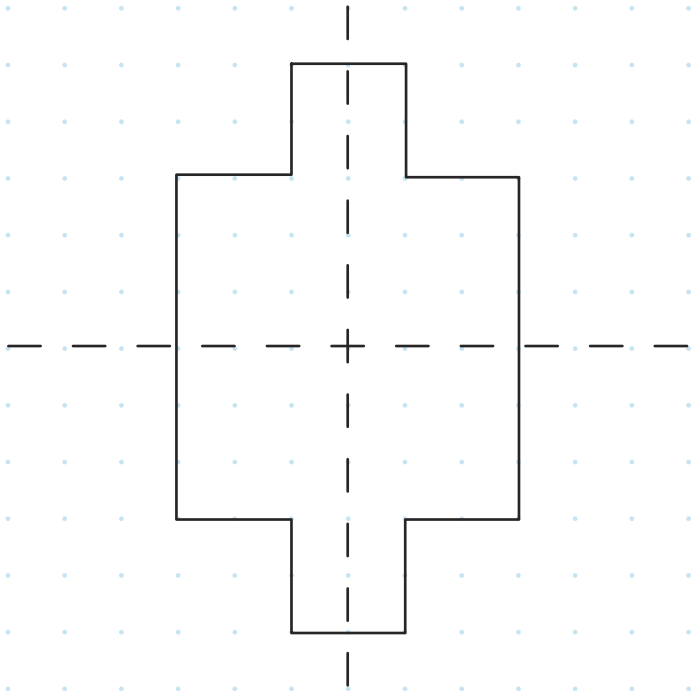
(_____, _____)

6. Joe made a cuboid with centimetre cubes.

Radhika made a cuboid 3cm taller than Joe's. How many cubes did Radhika use for her cuboid?



1. Draw all the lines of symmetry on this shape.



2. Sara is going on holiday. She has to travel 480 km by car. How many miles will she travel?

Use 8km = 5 miles.

480 ÷ 8 = 60

60 x 5 = 300 miles

3. 1/7 of a number is 27.

What is the number?

27 x 7 = 189

4. Tick the fractions that are equal to 60%.

$\frac{3}{5}$ ✓

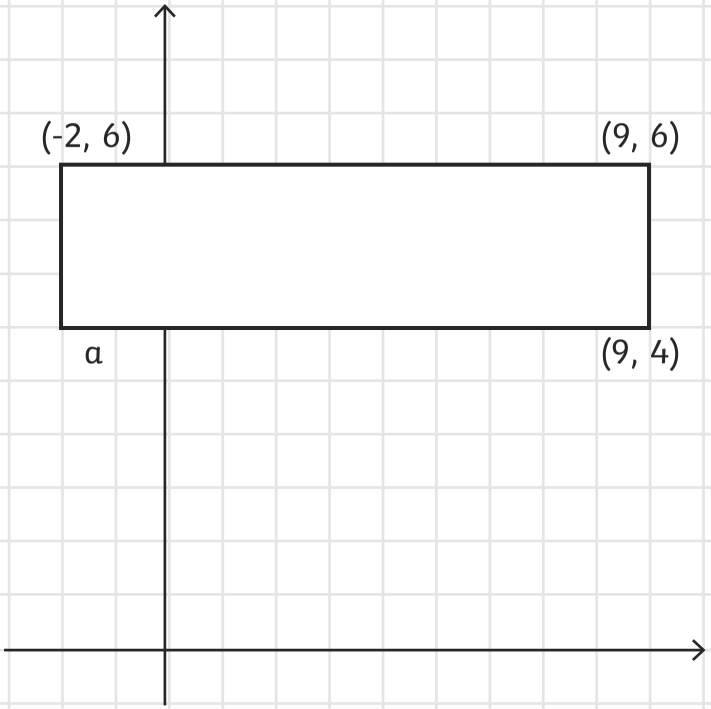
$\frac{6}{8}$ ☐

$\frac{1}{6}$ ☐

$\frac{9}{15}$ ✓

$\frac{6}{10}$ ✓

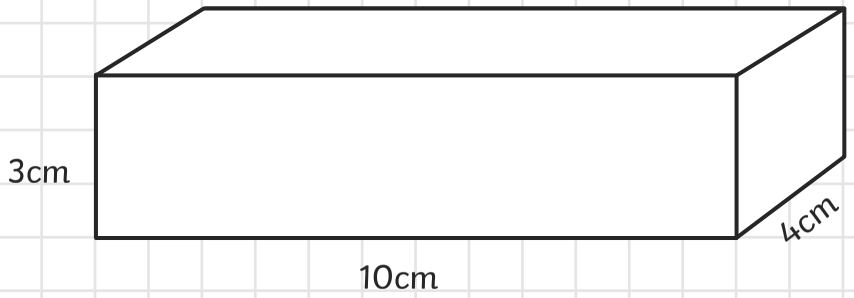
5. Fill in the missing coordinates for point a.



(-2,4)

6. Joe made a cuboid with centimetre cubes.

Radhika made a cuboid 3cm taller than Joe's. How many cubes did Radhika use for her cuboid?



10 x 4 x 6 = 240 cubes

1. Bella says, "If one angle in a triangle is 90°, the other two angles must be acute angles."

Explain why Bella is correct.

2. Look at this equation.

$$x + 3y = 20$$

The numbers represented by x and y are different whole numbers less than 10.

What could x and y be?

y = ☐ x = ☐

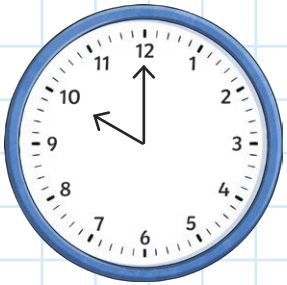
3. Taylor packs apples into boxes ready to take to the market. 36 apples fit into one box.

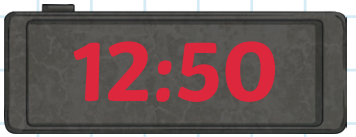
The boxes are placed into a crate.

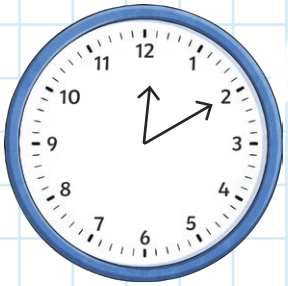
56 boxes fit in one crate.

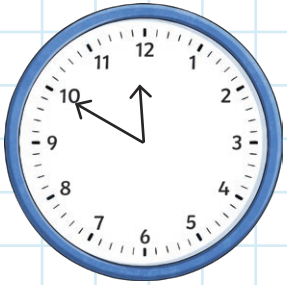
Taylor packs 3 crates for the market. How many apples does he take to the market?

4. Circle the times that show ten minutes to midnight.

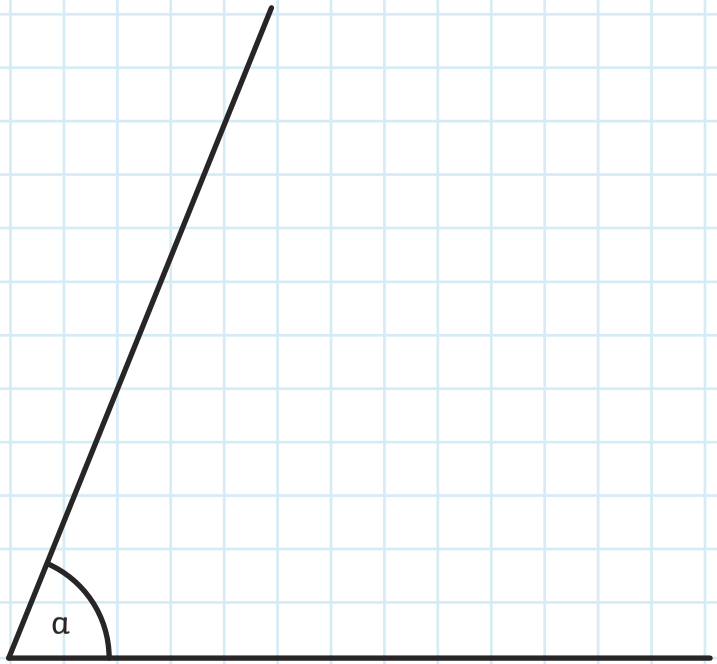








5. Use a protractor to measure angle a.



6. Rosa has been writing down the temperatures overnight for a week. These are her results.

-3°	2°	4°	-1°	-5°	-8°	-6°

Write the results in order, from highest to lowest.

highest

lowest

1. Bella says, "If one angle in a triangle is 90°, the other two angles must be acute angles."

Explain why Bella is correct.

Bella is correct because the angles in a triangle add up to 180°. If one angle is 90°, the other two angles must share the other 90°, meaning they must both be acute angles.

2. Look at this equation.

$$x + 3y = 20$$

The numbers represented by x and y are different whole numbers less than 10.

What could x and y be?

There is more than one possibility:

x = 2 and y = 6
x = 8 and y = 4

3. Taylor packs apples into boxes ready to take to the market. 36 apples fit into one box.

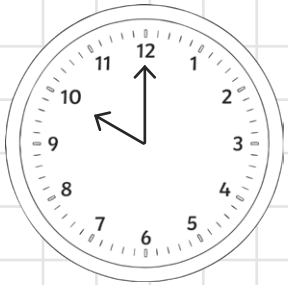
The boxes are placed into a crate.

56 boxes fit in one crate.

Taylor packs 3 crates for the market. How many apples does he take to the market?

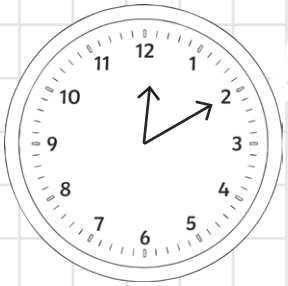
36 x 56 = 2016 per crate
2016 x 3 = 6048 apples

4. Circle the times that show ten minutes to midnight.



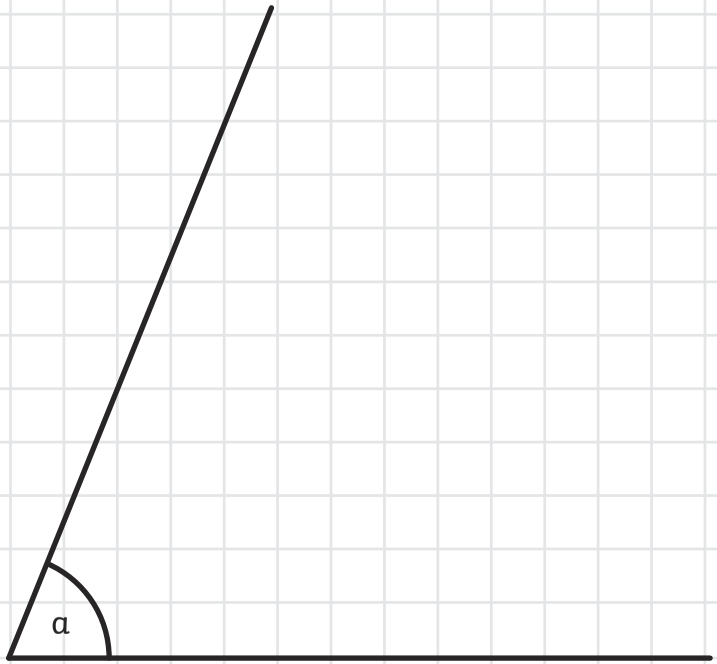
12:50

22:50



23:50

5. Use a protractor to measure angle a.



68°

6. Rosa has been writing down the temperatures overnight for a week. These are her results.

-3°	2°	4°	-1°	-5°	-8°	-6°

Write the results in order, from highest to lowest.

highest

4°

2°

-1°

-3°

-5°

-6°

-8°

lowest

SATs Rapid Revision Practice: Maths Reasoning 3

1. Write the missing numbers to make the additions correct.

500 000 + ☐ + 500 = 520 500

400 000 + 70 000 + ☐ + 60 = 470 960

300 000 + ☐ + 800 + 2 = 309 802

2. Here are six number cards.

2	3	4	6	8	9

Use each card once to complete the multiplications.

☐ x ☐ = 24

☐ x ☐ = 27

☐ x ☐ = 16

3. Some crows have landed in the field where some sheep are grazing. The farmer says, "There are 12 animals altogether and I can see 38 legs."

How many of each animal are there?

4. The area of this rectangle is 104cm^2.

What is the perimeter of the rectangle?

5. This pictogram shows the number of visitors to a park on a Saturday afternoon.

Key	○ = 20 people
12 p.m. - 2 p.m.	○○○○○○
2 p.m. - 4 p.m.	○○○○○○○◗
4 p.m. - 6 p.m.	○○○○○◢
6 p.m. - 8 p.m.	○○○◗

How many more people visited the park between 12pm and 2pm than between 6pm and 8pm?

How many people visited the park between 12 p.m. and 4 p.m.?

Alice says, "The total number of people that visited the park is a multiple of 10." Is she right or wrong? How can you tell?

6. Here are four fractions.

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

Order them from smallest to largest.

1. Write the missing numbers to make the additions correct.

500 000 + **20 000** + 500 = 520 500

400 000 + 70 000 + **900** + 60 = 470 960

300 000 + **9000** + 800 + 2 = 309 802

2. Here are six number cards.

2	3	4	6	8	9

Use each card once to complete the multiplications.

6 x **4** = 24

9 x **3** = 27

8 x **2** = 16

3. Some crows have landed in the field where some sheep are grazing. The farmer says, "There are 12 animals altogether and I can see 38 legs."

How many of each animal are there?

sheep	sheep legs	crows	crows legs	total
1	4	11	22	26
2	8	10	20	28
3	12	9	18	30
4	16	8	16	32
5	20	7	14	34
6	24	6	12	36
7	28	5	10	38 ✓
8	32	4	8	40
9	36	3	6	42
10	40	2	4	44
11	44	1	2	46

There are 7 sheep and 5 crows:

(7 x 4) + (5 x 2)

= 28 + 10

= 38

4. The area of this rectangle is 104cm^2.

What is the perimeter of the rectangle?

104 ÷ 8 = 13

The length of the rectangle is 13cm.

Perimeter = 2 x (l + w)

2 x (13 + 8)

= 2 x 21

= 42cm

5. This pictogram shows the number of visitors to a park on a Saturday afternoon.

Key	○ = 20 people
12 p.m. - 2 p.m.	○○○○○○
2 p.m. - 4 p.m.	○○○○○○○◗
4 p.m. - 6 p.m.	○○○○○◪
6 p.m. - 8 p.m.	○○○◗

How many more people visited the park between 12pm and 2pm than between 6pm and 8pm?

120 – 70 = 50

How many people visited the park between 12 p.m. and 4 p.m.?

120 + 150 = 270

Alice says, "The total number of people that visited the park is a multiple of 10." Is she right or wrong? How can you tell?

The total can't be a multiple of 10 because there is only one symbol which represents 5 people and all of the other symbols represent multiples of 10 people, so the total will have to be a multiple of 5 ending in 5.

6. Here are four fractions.

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

Order them from smallest to largest.

$\frac{5}{8} = \frac{35}{56}$ $\frac{4}{7} = \frac{32}{56}$ $\frac{1}{2} = \frac{28}{56}$ $\frac{3}{4} = \frac{42}{56}$

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

1. Jessica goes to the toy shop. She buys a teddy, a boat and three toy soldiers. She pays with a £20 note.

How much change does she receive?

2. A tap has a leak. It is losing 1.2l of water per hour.

Sandy puts a bucket under the tap at 9:15 a.m. and checks the bucket at midday.

How much water is in the bucket?

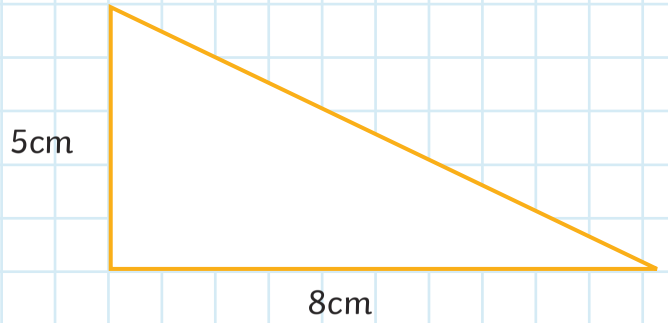
3. Ronnie has sold some of his clothes and has packed them up into parcels.

Order Ronnie's parcels from lightest to heaviest.

4. This triangle has the same area as a rectangle.

The dimensions of the rectangle are whole numbers.

What could be the length and width of the rectangle? Give two possibilities.



5. Draw lines to match the fraction to its equivalent decimal.

$\frac{2}{5}$	0.3
$\frac{3}{4}$	0.875
$\frac{12}{20}$	1
$\frac{2}{2}$	0.4
$\frac{7}{8}$	0.75
$\frac{3}{10}$	0.6

6. Nazra uses an 18cm length of ribbon to tie around her homemade toys.

She buys a reel with 2.5m of ribbon on. How many lengths of ribbon can she make with this reel?

1. Jessica goes to the toy shop. She buys a teddy, a boat and three toy soldiers. She pays with a £20 note.

How much change does she receive?

3 x 68p = 204p = £2.04
£2.04 + £4.88 + £7.75 = £14.67
£20 – £14.67 = £5.33

2. A tap has a leak. It is losing 1.2l of water per hour.

Sandy puts a bucket under the tap at 9:15 a.m. and checks the bucket at midday.

How much water is in the bucket?

9:15 a.m. to midday is 2 $\frac{3}{4}$ hours.
1.2l x 2 = 2.4l (2 hours)
1.2l ÷ 4 = 0.3l ($\frac{1}{4}$ litre)
0.3 x 3 = 0.9l ($\frac{3}{4}$ litre)
2.4 + 0.9 = 3.3l

3. Ronnie has sold some of his clothes and has packed them up into parcels.

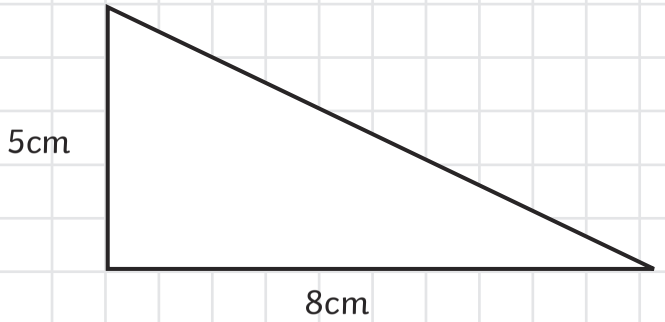
Order Ronnie's parcels from lightest to heaviest.

0.8kg
880g
1008g
1.08kg
1.8kg
8.8kg

4. This triangle has the same area as a rectangle.

The dimensions of the rectangle are whole numbers.

What could be the length and width of the rectangle? Give two possibilities.

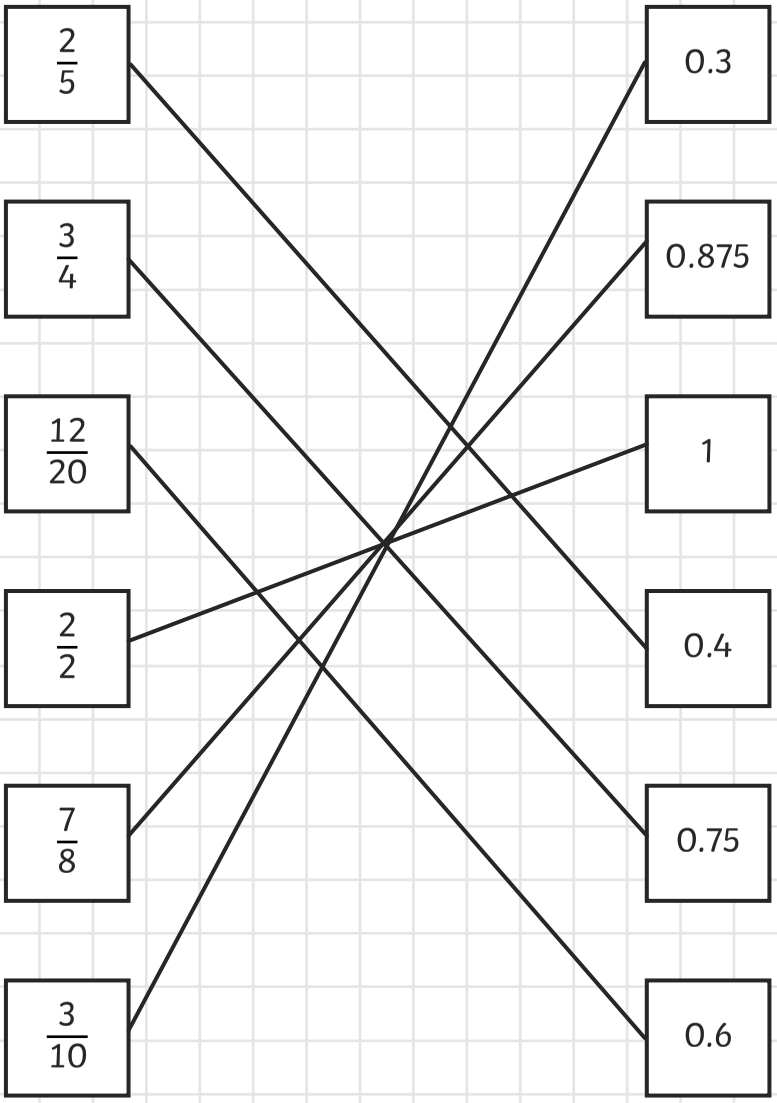


area of the triangle = $\frac{1}{2}$ x length x height
= $\frac{1}{2}$ x 8 x 5
= 20cm²

The rectangle could have these dimensions:

length	width
2	10
5	4
1	20
10	2
4	5
20	1

5. Draw lines to match the fraction to its equivalent decimal.



6. Nazra uses an 18cm length of ribbon to tie around her homemade toys.

She buys a reel with 2.5m of ribbon on. How many lengths of ribbon can she make with this reel?

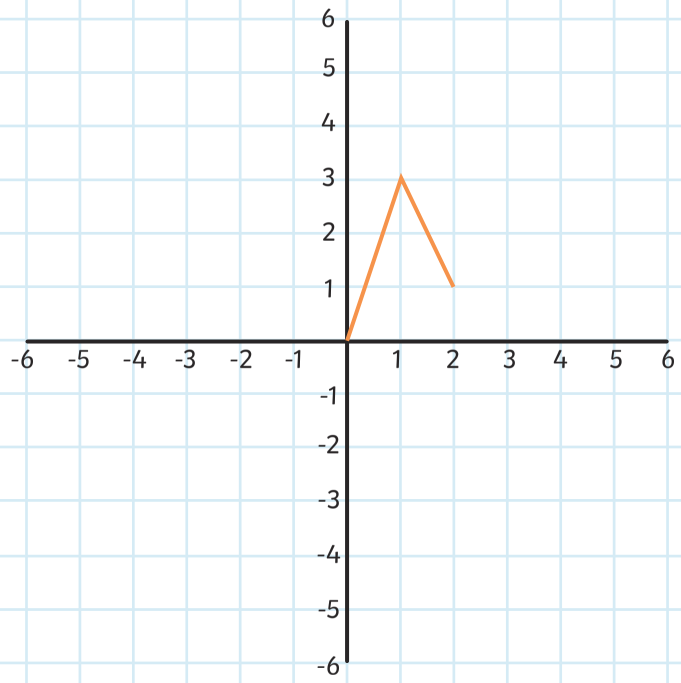
2.5m = 250cm

250 ÷ 18 = 13r16

Nazra can make 13 lengths of ribbon.

1. Harry draws a quadrilateral. He plots one more point at (1, -1). Plot his final point and then join the sides to make his quadrilateral.

Harry then translates his shape 2 squares down and 4 squares left. Tick the coordinates of his new shape.



(-2, -4)	☐	(-4, -2)	☐
(-3, -3)	☐	(1, -3)	☐
(-2, -1)	☐	(-3, 1)	☐

2. Here are some numbers.

2 3 4 5 6 7 8 9

Place the numbers into the categories that they fit. You can place one number in more than one category.

Prime Number

Square Number

Factor of 20

Which two numbers can't be placed in any category?

_____ and _____

3. The staff at the sweet shop are making packets of mixed sweets. They have a large box of 350 sweets to use. 28 sweets go into each packet. How many full packets can they make?

4. Tick the numbers that round to 53.6

53.57	☐
53.54	☐
53.66	☐
53.55	☐
53.06	☐
53.62	☐

5. Cora is thinking of a 3D shape. She says, "This shape has 4 triangular faces and 1 square face."

What shape is she thinking of?

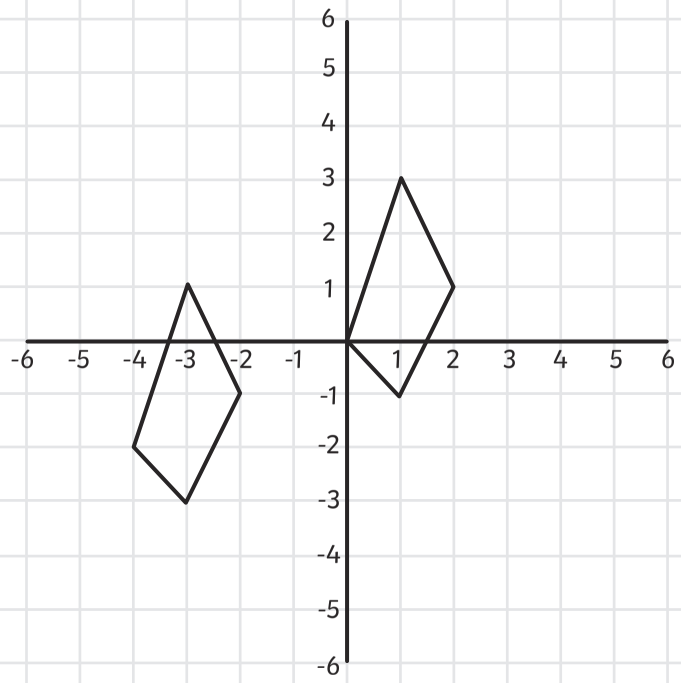
6. Use the symbols below to fill in the gaps to make the statements correct.

> < =

$\frac{4}{10}$		0.4
$\frac{42}{100}$		0.042
$\frac{9}{100}$		0.9
$\frac{52}{1000}$		0.52

1. Harry draws a quadrilateral. He plots one more point at (1, -1). Plot his final point and then join the sides to make his quadrilateral.

Harry then translates his shape 2 squares down and 4 squares left. Tick the coordinates of his new shape.



(-2, -4)		(-4, -2)	✓
(-3, -3)	✓	(1, -3)	
(-2, -1)	✓	(-3, 1)	✓

2. Here are some numbers.

2 3 4 5 6 7 8 9

Place the numbers into the categories that they fit. You can place one number in more than one category.

Prime Number

2 3 5 7

Square Number

4 9

Factor of 20

2 4 5

Which two numbers can't be placed in any category?

6 and **8**

3. The staff at the sweet shop are making packets of mixed sweets. They have a large box of 350 sweets to use. 28 sweets go into each packet. How many full packets can they make?

350 ÷ 28 = 12r14

They can make 12 full packets of sweets.

12

4. Tick the numbers that round to 53.6

53.57	✓
53.54	
53.66	
53.55	✓
53.06	
53.62	✓

5. Cora is thinking of a 3D shape. She says, "This shape has 4 triangular faces and 1 square face."

What shape is she thinking of?

square-based pyramid

6. Use the symbols below to fill in the gaps to make the statements correct.

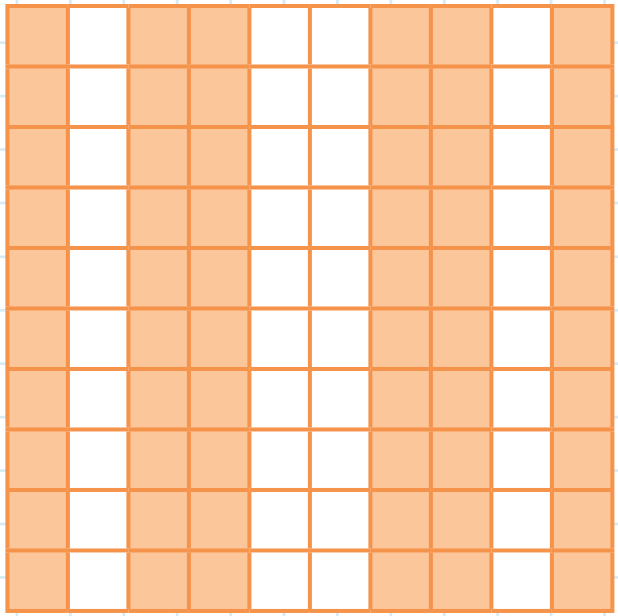
> < =

$\frac{4}{10}$	=	0.4
$\frac{42}{100}$	>	0.042
$\frac{9}{100}$	<	0.9
$\frac{52}{1000}$	<	0.52

SATs Rapid Revision Practice: Maths Reasoning 5

1. Part of this grid is shaded.

Tick all the fractions that the shaded part represents.



$\frac{60}{100}$		$\frac{3}{5}$	
$\frac{1}{2}$		$\frac{6}{100}$	
$\frac{6}{10}$		$\frac{1}{6}$	

2. Write the missing digits into the equation to make it correct.

	6	+		1		= 600

3. The frequency table shows how many children had a school dinner in one week.

Complete the table.

Day	Class 1	Class 2	Total
Monday	16	12	28
Tuesday	17		32
Wednesday		13	31
Thursday	13		27
Friday	24	21	

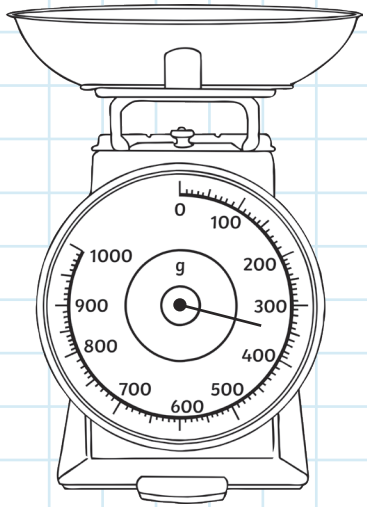
How many more lunches were made for class 1 than for class 2 that week?

4. A water pipe leaks water at a rate of 15ml every 4 seconds.

How many litres of water will have leaked from the pipe in an hour?

5. Selma is making bread. She puts her flour on the scales.

She needs 1kg of flour to make her bread. How much more flour does she need? Give your answer in kilograms.



kg

6. Rex fixes dishwashers. He charges £22 per hour plus a call-out charge of £30.

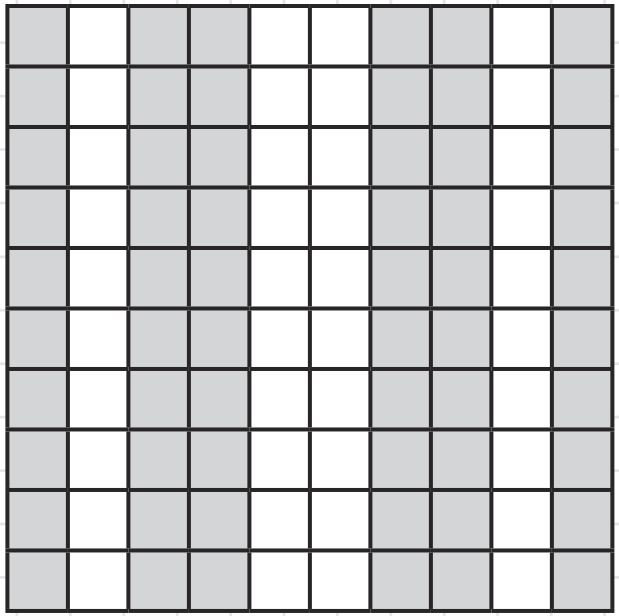
The letter **h** stands for the number of hours Rex works.

Which expression shows Rex's charges? Tick one.

h + 30 x 22	☐
h x 30 + 22	☐
h + 22 + 30	☐
h x 22 + 30	☐

1. Part of this grid is shaded.

Tick all the fractions that the shaded part represents.



$\frac{60}{100}$	✓	$\frac{3}{5}$	✓
$\frac{1}{2}$		$\frac{6}{100}$	
$\frac{6}{10}$	✓	$\frac{1}{6}$	

2. Write the missing digits into the equation to make it correct.

8	6	+	**5**	1	**4**	= 600

3. The frequency table shows how many children had a school dinner in one week.

Complete the table.

Day	Class 1	Class 2	Total
Monday	16	12	28
Tuesday	17	**15**	32
Wednesday	**18**	13	31
Thursday	13	**14**	27
Friday	24	21	**45**
			163

How many more lunches were made for class 1 than for class 2 that week?

Class 1:
16 + 17 + 18 + 13 + 24 = 88

Class 2:
12 + 15 + 13 + 14 + 21 = 75

88 – 75 = 13

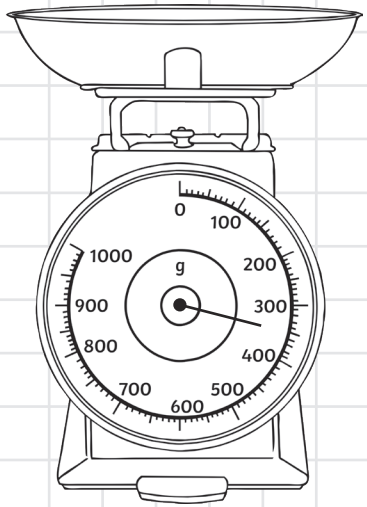
4. A water pipe leaks water at a rate of 15ml every 4 seconds.

How many litres of water will have leaked from the pipe in an hour?

15 x 15 = 225ml per minute
225 x 60 = 13 500ml per hour
13 500ml = 13.5l

5. Selma is making bread. She puts her flour on the scales

She needs 1kg of flour to make her bread. How much more flour does she need? Give your answer in kilograms.



1000g – 350g = 650g
650g = 0.65kg

0.65 kg

6. Rex fixes dishwashers. He charges £22 per hour plus a call-out charge of £30.

The letter **h** stands for the number of hours Rex works.

Which expression shows Rex's charges? Tick one.

h + 30 x 22	
h x 30 + 22	
h + 22 + 30	
h x 22 + 30	✓

1. Write numbers in the boxes to balance the calculations.

65 x ☐ = 10 x 6500

10 x 340 = 34 x ☐

1000 x ☐ = 10 x 4.9

2. A skateboard shop is holding a 30% off sale. The original price of a skateboard is £125.50.

What is the new price of the skateboard?

3. Here is a table showing a number and the number that is 1000 more.

Complete the grid.

Number	1000 More
2256	3256
3071	
1 499 756	
	90 065
4.72	

4. Some children choose their favourite outing.

$\frac{2}{5}$ choose the beach.

35% choose the park.

The rest choose the zoo.

What fraction of children choose the zoo?

5. Indie thinks of a number.

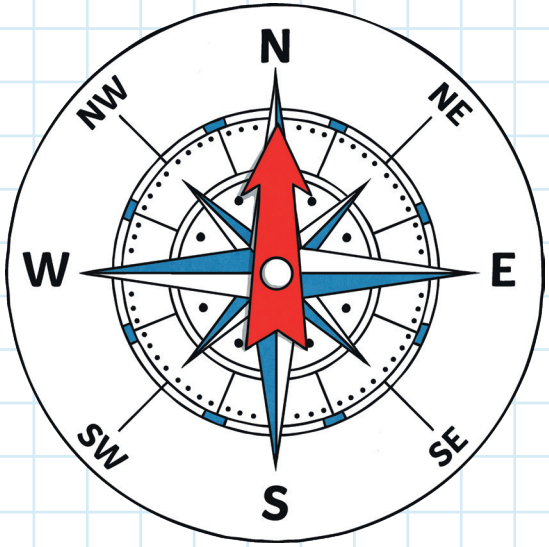
She says, "I multiplied my number by 3 and added 26 to get 77."

What number did she start with?

6. Here is a compass.

Rohit stands facing north-west. He turns anticlockwise to face south.

How many degrees did he turn through?



_____ °

1. Write numbers in the boxes to balance the calculations.

65 x **1000** = 10 x 6500

10 x 340 = 34 x **100**

1000 x **0.049** = 10 x 4.9

2. A skateboard shop is holding a 30% off sale. The original price of a skateboard is £125.50.

What is the new price of the skateboard?

10% of £125.50 = £12.55

30% = £12.55 x 3 = £37.65

£125.50 – £37.55 = £87.85

3. Here is a table showing a number and the number that is 1000 more.

Complete the grid.

Number	1000 More
2256	3256
3071	**4071**
1 499 756	**1 500 756**
89 065	90 065
4.72	**1004.72**

4. Some children choose their favourite outing.

$\frac{2}{5}$ choose the beach.

35% choose the park.

The rest choose the zoo.

What fraction of children choose the zoo?

Beach:

$\frac{2}{5}$ = 2050 = 40100

Park:

35% = 35100

40100 + 35100 = 75100

75100 choose the beach or the park so the fraction of children that choose the zoo is 25100 or 14.

5. Indie thinks of a number.

She says, "I multiplied my number by 3 and added 26 to get 77."

What number did she start with?

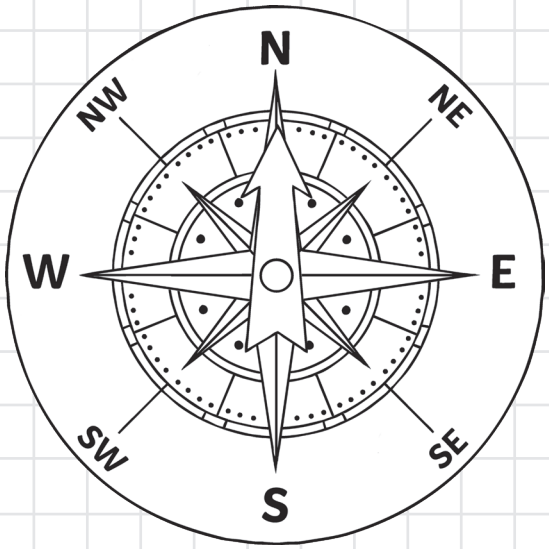
77 – 26 = 51

51 ÷ 3 = 17

6. Here is a compass.

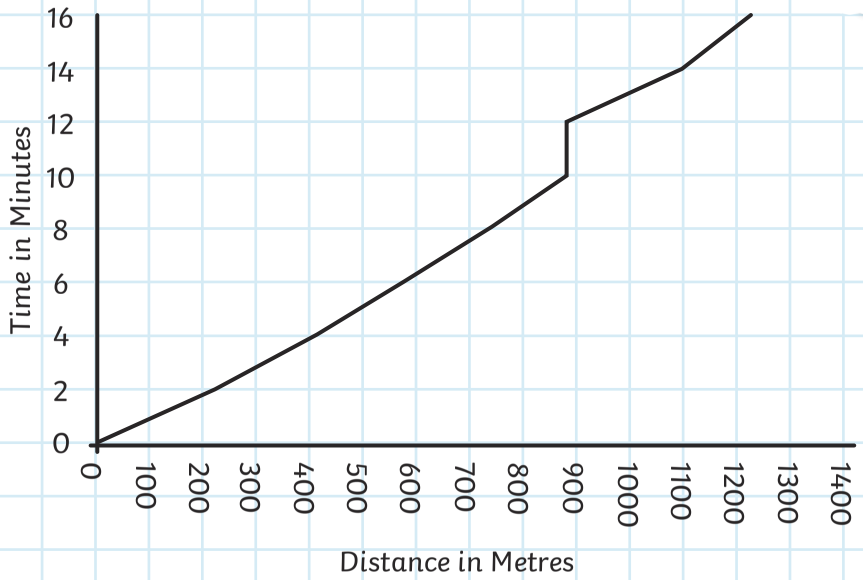
Rohit stands facing north-west. He turns anticlockwise to face south.

How many degrees did he turn through?



135 °

1. Jan goes for a skip. She records her progress on a line graph afterwards.



1. Approximately how long did it take Jan to skip 1km?

2. What do you think was happening between 10 and 12 minutes?

3. Jan says, "It took me approximately 5 minutes to skip 500m so it should take me no more than 50 minutes to skip 5000m." Do you think Jan is correct? Explain your reasons.

2. Each cat stands for a value in this grid.

Complete the grid with the totals for each row and column and then find out what the other cats are worth.

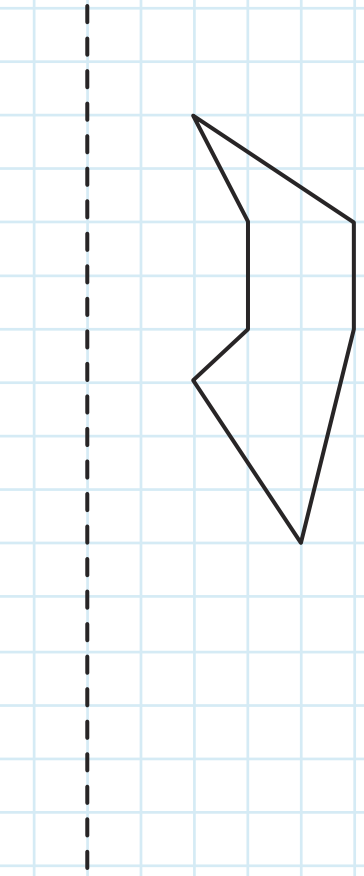
			= 61
			=
			=
=	= 77	=	

= 23	=	=

3. Complete the grid by rounding the numbers to the nearest ten, hundred and thousand.

	nearest 10	nearest 100	nearest 1000
1542			
23 691			
249 906			
405 151			
999 954			

4. Use a ruler to draw the reflection of the shape.



5. Jack is investigating prime numbers. He says, "The number 7 is a prime number so every number ending in 7 is a prime number."

Is he correct? Explain your answer.

6. Paulo is making a cake. The recipe is for 12 people.
He needs:

- 270g margarine
- 270g caster sugar
- 6 eggs
- 270g flour
- 360g icing sugar
- 3 tbs water
- sprinkles

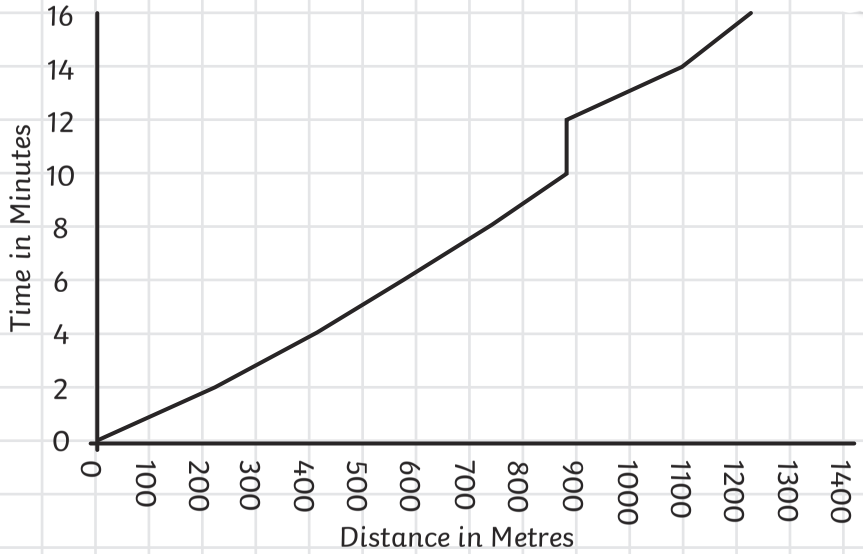
He needs to make enough cake to feed 20 people.

How much of each ingredient will he need?

Cake Recipe

- _____ margarine
- _____ caster sugar
- _____ eggs
- _____ flour
- _____ icing sugar
- _____ tbs water
- sprinkles

1. Jan goes for a skip. She records her progress on a line graph afterwards.



1. Approximately how long did it take Jan to skip 1km?

13 minutes

2. What do you think was happening between 10 and 12 minutes?

Any answer which suggests she stopped skipping, for example:

Jan stopped for a rest/for a drink

She might have fallen over because she stopped skipping

3. Jan says, "It took me approximately 5 minutes to skip 500m so it should take me no more than 50 minutes to skip 5000m." Do you think Jan is correct? Explain your reasons.

Jan is incorrect. She took 5 minutes for the first 500 metres of her skipping, but the graph shows that the next 500 metres took her 8 minutes. Therefore, it is reasonable to assume that she will take longer than 50 minutes to skip 5000 metres.

2. Each cat stands for a value in this grid.

Complete the grid with the totals for each row and column and then find out what the other cats are worth.

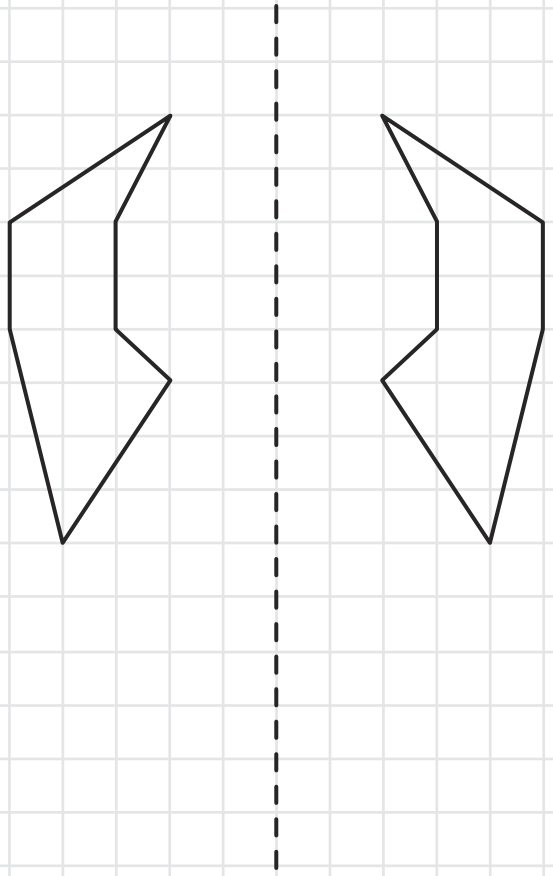
			= 61
			= **53**
			= **85**
= **69**	= 77	= **53**	

= 23	= **15**	= **31**

3. Complete the grid by rounding the numbers to the nearest ten, hundred and thousand.

	nearest 10	nearest 100	nearest 1000
1542	**1540**	**1500**	**2000**
23 691	**23 690**	**23 700**	**24 000**
249 906	**249 910**	**249 900**	**250 000**
405 151	**405 150**	**405 200**	**405 000**
999 954	**999 950**	**1 000 000**	**1 000 000**

4. Use a ruler to draw the reflection of the shape.



5. Jack is investigating prime numbers. He says, "The number 7 is a prime number so every number ending in 7 is a prime number."

Is he correct? Explain your answer.

Any answer giving an example to disprove Jack's statement is acceptable, such as:
Jack is incorrect. 7 is a prime number and so is 17, but the number 27 is not a prime number.

6. Paulo is making a cake. The recipe is for 12 people.
He needs:

- 270g margarine
- 270g caster sugar
- 6 eggs
- 270g flour
- 360g icing sugar
- 3 tbs water
- sprinkles

He needs to make enough cake to feed 20 people.
How much of each ingredient will he need?

Work out the recipe for 4 people first by dividing the original measurements by 3:
270 ÷ 3 = 90g margarine
270 ÷ 3 = 90g caster sugar
6 ÷ 3 = 2 eggs
270 ÷ 3 = 90g flour
360 ÷ 3 = 120g icing sugar
3 ÷ 3 = 1 tbsp water
Now multiply each ingredient by 5 to make 20 portions:
90 x 5 = 450g margarine
90 x 5 = 450g caster sugar
2 x 5 = 10 eggs
90 x 5 = 450g flour
120 x 5 = 600g icing sugar
1 x 5 = 5 tbsp water

Cake Recipe

- **450g** margarine
- **450g** caster sugar
- **10** eggs
- **450g** flour
- **600g** icing sugar
- **5** tbs water
- sprinkles

1. Jonah paints house exteriors.

He uses this formula to work out how much to charge people:

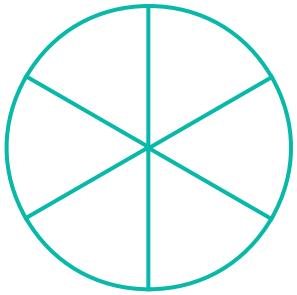
Total cost = £47.50 per hour + £350 expenses

How much will it cost for him to complete a job lasting 8 hours?

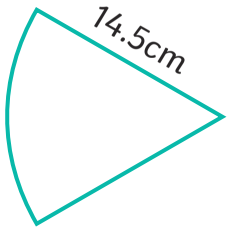
2. Write the missing number to make the division correct:

36 000 ÷ ☐ = 1.2

3. A pizza is cut into slices like this:



Here is one slice:



What is the diameter of the whole pizza?

4. Fill in the missing numbers in the number sequences.

40, 80, 120, ☐ ☐ ☐

☐ ☐ 58, 50, 42, ☐

70, 50, 30, ☐ ☐ ☐

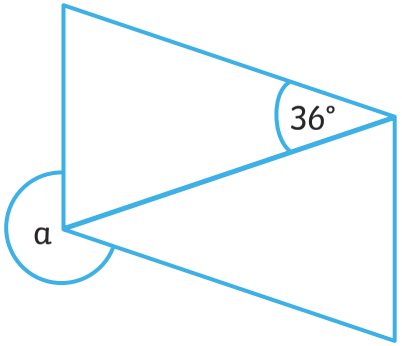
5. A carnival is held over three days. In total, 341 056 people attended.

On the first day, 82 154 people attended.

On the second day, 128 932 people attended.

How many people attended on the third day?

6. Aisha puts two identical isosceles triangles together like this:



Calculate angle a.

1. Jonah paints house exteriors.

He uses this formula to work out how much to charge people:

Total cost = £47.50 per hour + £350 expenses

How much will it cost for him to complete a job lasting 8 hours?

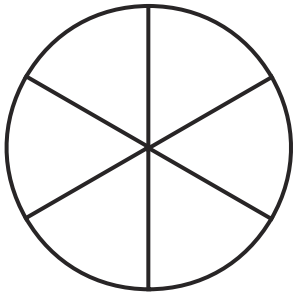
£47.50 x 8 = £380

£380 + £350 = £730

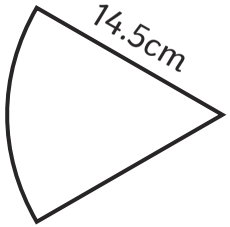
2. Write the missing number to make the division correct:

36 000 ÷ **30 000** = 1.2

3. A pizza is cut into slices like this:



Here is one slice:



What is the diameter of the whole pizza?

14.5 x 2 = 29cm

29cm

4. Fill in the missing numbers in the number sequences.

40, 80, 120, **160** **200** **240**

74 **66** 58, 50, 42, **34**

70, 50, 30, **10** **-10** **-30**

5. A carnival is held over three days. In total, 341 056 people attended.

On the first day, 82 154 people attended.

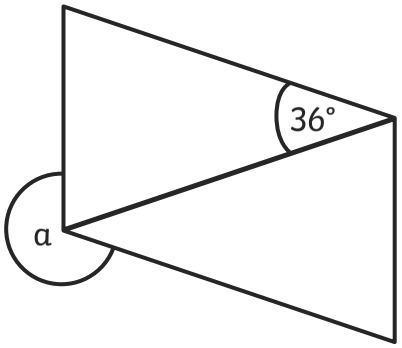
On the second day, 128 932 people attended.

How many people attended on the third day?

82 154 + 128 932 = 211 086

341 056 – 211 086 = 129 970

6. Aisha puts two identical isosceles triangles together like this:



Calculate angle a.

180 – 36 = 144

144 ÷ 2 = 72

72 + 36 = 108

360 – 108 = 252°

1. Look at the number cards. Write them in order from smallest to largest.

2 603 406

2 060 403

2 060 340

2 036 640

2 604 603

smallest

largest

2. At the cafe, Rob buys 3 cupcakes and 2 milkshakes for £14.85.

Faith buys 3 milkshakes for £10.35.

How much does 1 cupcake cost?

3. Fill in the missing digits in this calculation.

			4	7	5
	x				5
	3	7	3	7	5
2	2	4	2	5	0
2	6	1	6	2	5

4. Here are the numbers of visitors to a theatre over 4 weekends.

What is the mean number of visitors per weekend?

Weekend	Number of Visitors
1	8746
2	9258
3	9275
4	13041

5. There are 20 cherry tomatoes in one small pack.

A box containing packs of cherry tomatoes has 1000 tomatoes in. How many packs are in the box?

The full box weighs 6.5kg. How much does one pack of tomatoes weigh?

6. Carina chooses a number. When she multiplies her numbe. by 3, the answer is less than 100. When she multiples her number by 4, the answer is more than 100.

What number could she have started with?

1. Look at the number cards. Write them in order from smallest to largest.

2 603 406

2 060 403

2 060 340

2 036 640

2 604 603

smallest

2 036 640

2 060 340

2 060 403

2 603 406

2 604 603

largest

2. At the cafe, Rob buys 3 cupcakes and 2 milkshakes for £14.85.

Faith buys 3 milkshakes for £10.35.

How much does 1 cupcake cost?

£10.35 ÷ 3 = £3.45 (1 milkshake)
£3.45 x 2 = £6.90 (2 milkshakes)
£14.85 – £6.90 = £7.95 (3 cupcakes)
£7.95 ÷ 3 = £2.65 (1 cupcake)

3. Fill in the missing digits in this calculation.

		7	4	7	5
	x			**3**	5
	3	7	3	7	5
2	2	4	2	5	0
2	6	1	6	2	5

4. Here are the numbers of visitors to a theatre over 4 weekends.

What is the mean number of visitors per weekend?

Weekend	Number of Visitors
1	8746
2	9258
3	9275
4	13041

8746 + 9258 + 9275 + 13041 = 40 320

40 320 ÷ 4 = 10 080

5. There are 20 cherry tomatoes in one small pack.

A box containing packs of cherry tomatoes has 1000 tomatoes in. How many packs are in the box?

1000 ÷ 20 = 50

The full box weighs 6.5kg. How much does one pack of tomatoes weigh?

6.5kg ÷ 50 = 6500g ÷ 50 = 130g

6. Carina chooses a number. When she multiplies her number by 3, the answer is less than 100. When she multiples her number by 4, the answer is more than 100.

What number could she have started with?

She could have any of these:
26, 27, 28, 29, 30, 31, 32, 33

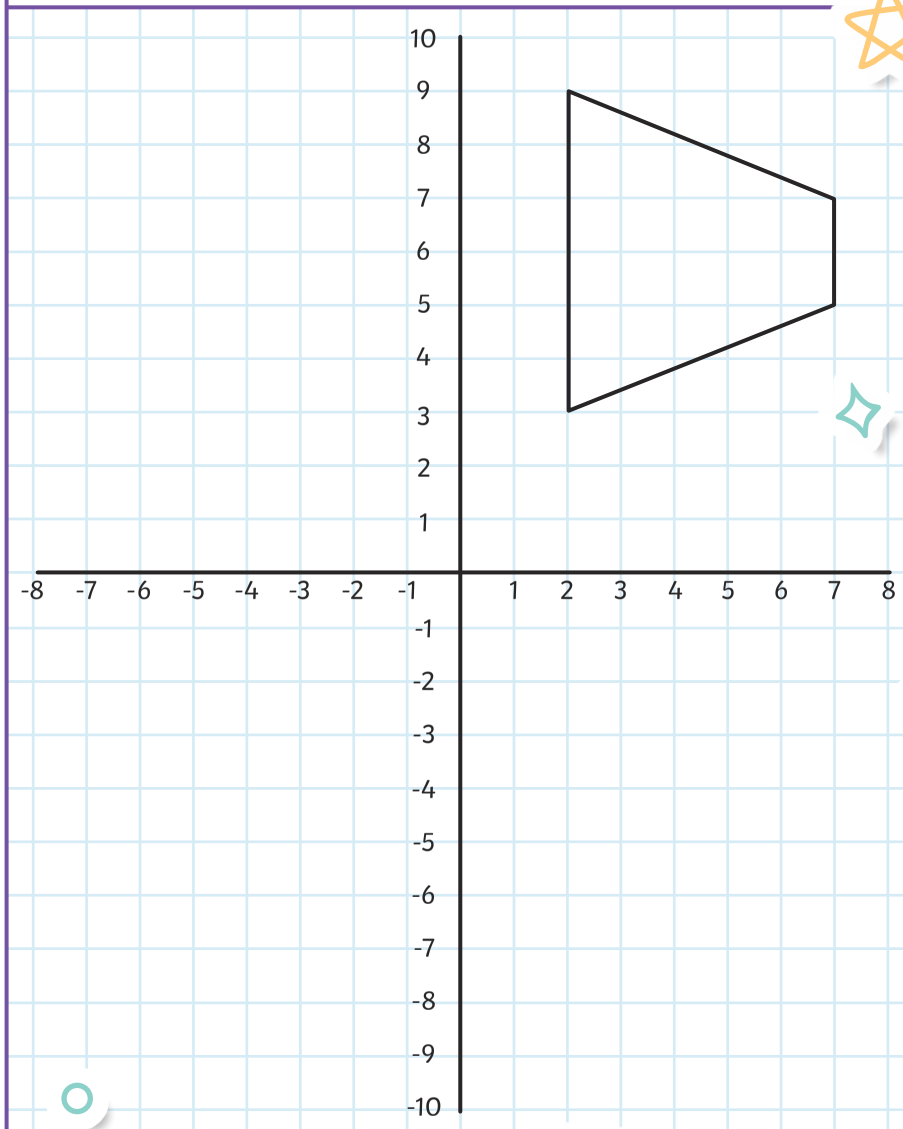
1. Callum is a runner. He says, "Yesterday I ran 3 miles and 20 yards."

How far did he run in metres?

Conversion Table	
1 mile	1.6km
1 yard	91cm

2. Look at this shape.

Translate the shape 10 squares down and draw the new shape. Then, reflect the new shape in the y-axis and draw it on the grid.

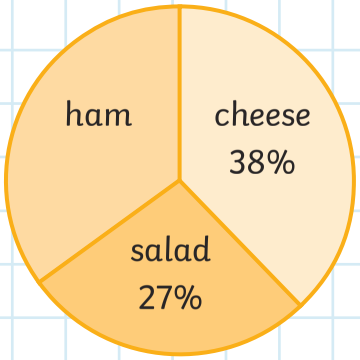


3. Match the numbers that add together to make 10.

9.99	0.91
8.09	0.1
9.09	0.11
9.89	1.91
9.9	0.01

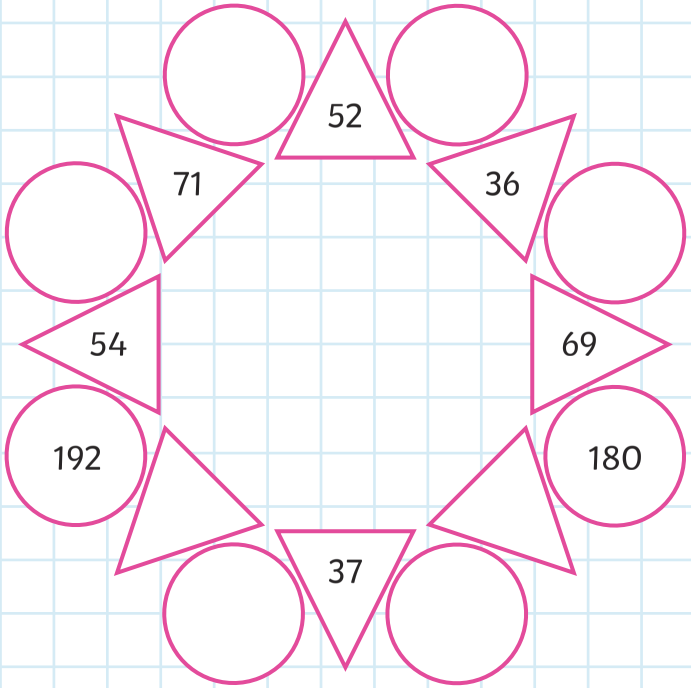
4. 800 children were asked to vote for their favourite sandwich filling. This pie chart shows the results.

How many children voted for ham?



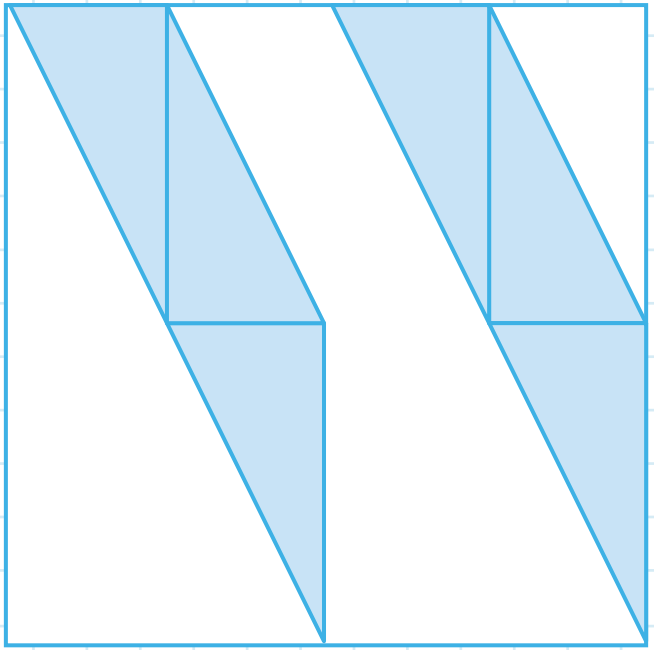
5. To find the totals in the circles in this diagram, you need to add the two numbers in the triangles on either side of each circle and double the answer.

Fill in the missing numbers.



6. This shape is made up of identical triangles.

What fraction of the whole shape is shaded?



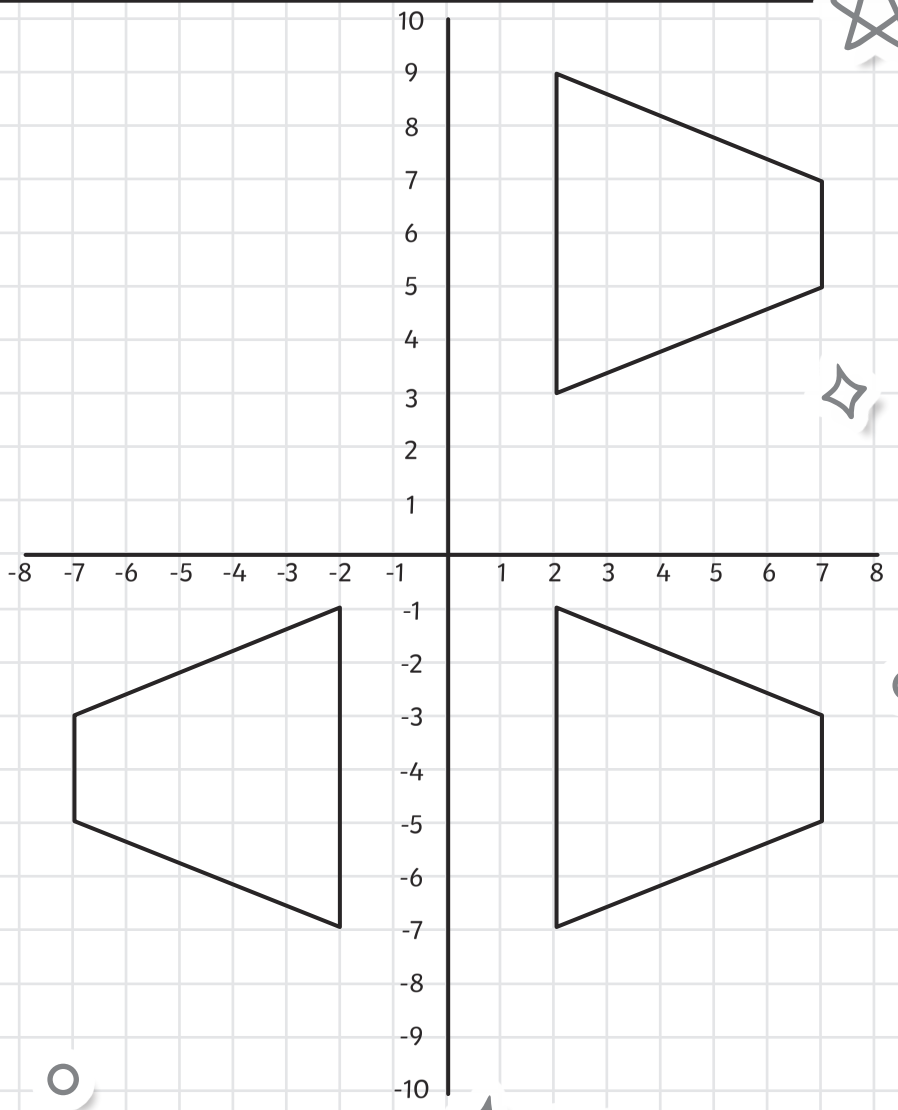
1. Match the numbers that add together to make 10.

Conversion Table	
1 mile	1.6km
1 yard	91cm

3 x 1.6 = 4.8km = 4800m
20 x 91 = 1820cm = 18.2m
4800 + 18.2 = 4818.2m

2. Look at this shape.

Translate the shape 10 squares down and draw the new shape. Then, reflect the new shape in the y-axis and draw it on the grid.



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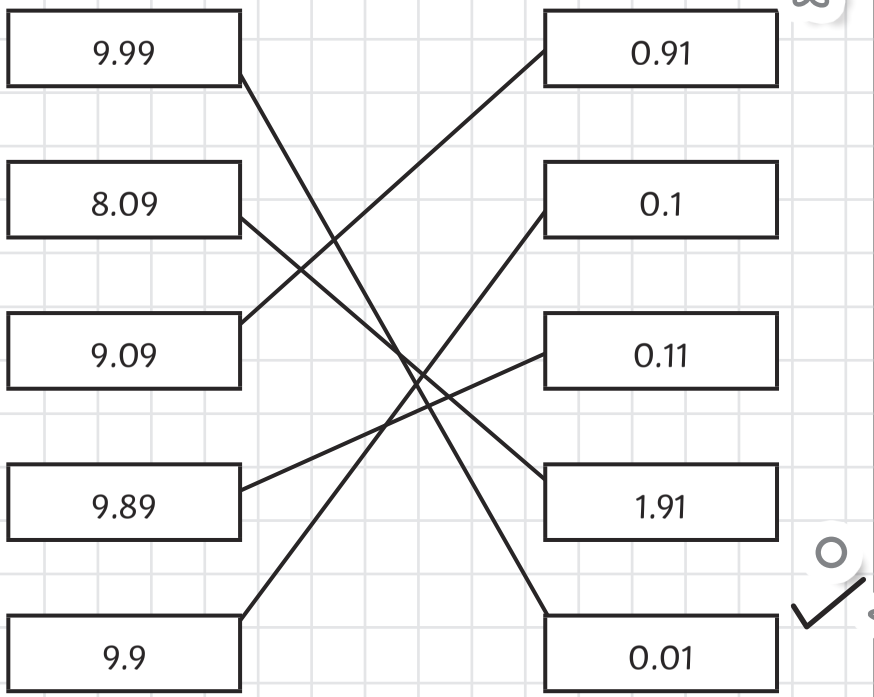

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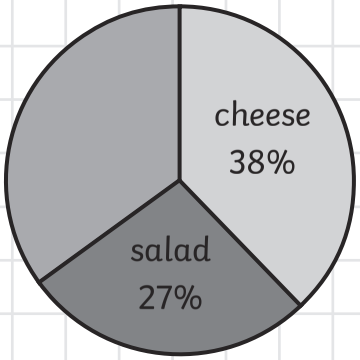
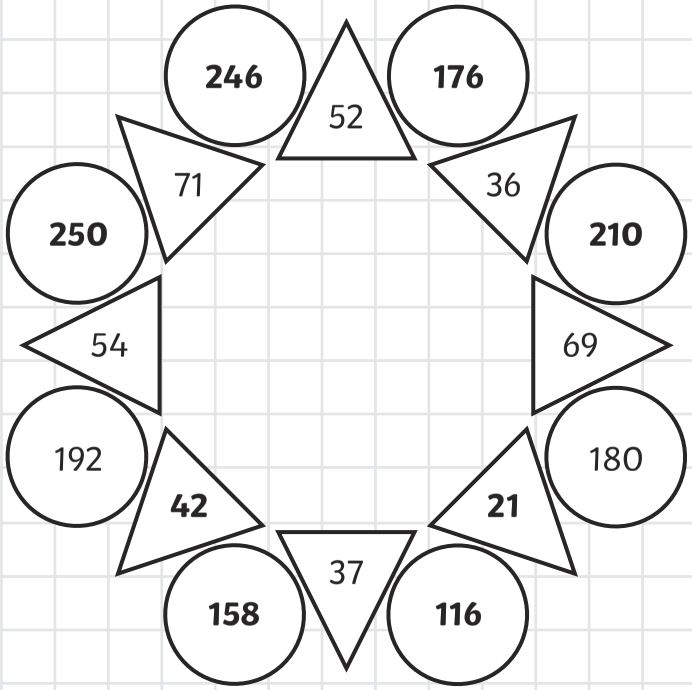


38% + 27 % = 65%
35% voted for ham.
35% of 800:
0% of 800 = 80
5% of 800 = 40
35% of 800 = 80 + 80 + 80 + 40 = 280

5. To find the totals in the circles in this diagram, you need to add the two numbers in the triangles either side of each circle and double the answer.



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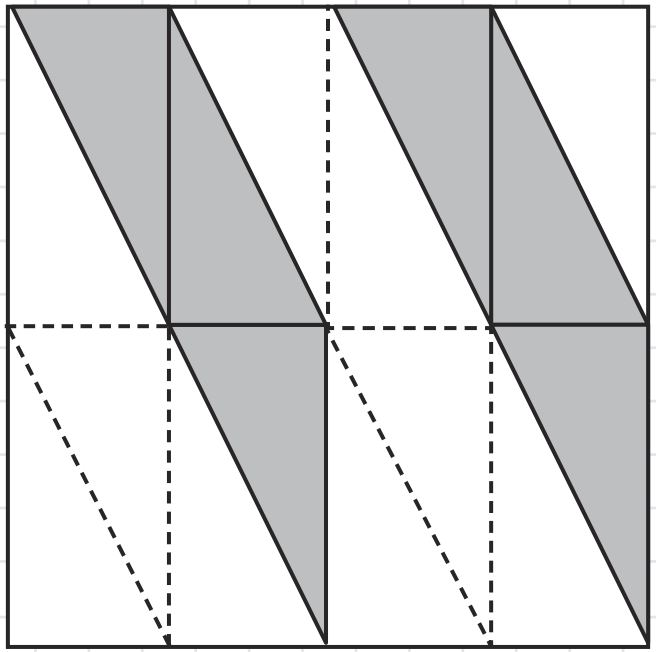
What fraction of the whole shape is shaded?



$\frac{6}{16}$ or $\frac{3}{8}$

1. The area of Hettie's field is 5178m^2.

The length of Kenny's field is 82m and the width is 63m.

Whose field has the largest area and by how much?

2. Here is a Carroll diagram.

Write two numbers in each section of the Carroll diagram.

	Multiples of 8	Not Multiples of 8
100 or less		
More than 100		

3. Fill in the missing fractions in these calculations.

$\frac{3}{8}$ + ☐ = $\frac{7}{8}$

$1\frac{2}{5}$ - ☐ = $\frac{3}{5}$

$\frac{2}{5}$ + ☐ = $\frac{9}{10}$

4. Tilly has some cards with Roman numerals on. Order them from smallest to largest.

LXXIV	CXI	MX	LVII	XCVI

smallest largest

5. Ben is thinking of a number. He says, "30% of my number is 78."

What is 55% of Ben's number?

6. In this sequence, the rule to get to the next number is:

multiply by 3, then subtract 6

Use the rule to work out the missing numbers.

☐ ☐ 39, 111 ☐

1. The area of Hettie's field is 5178m^2.

The length of Kenny's field is 82m and the width is 63m.

Whose field has the largest area and by how much?

82 x 63 = 5166

5178 −5166 = 12

Hettie's field has a larger area by 12m^2.

2. Here is a Carroll diagram.

Write two numbers in each section of the Carroll diagram.

There are lots of numbers that could go

	Multiples of 8	Not Multiples of 8
100 or less	E.g. 8, 16, 24, 40, 64, 72, 88, 96, etc	E.g. 43, 21, 6, 18, 67, 84, 36, 92, etc
More than 100	E.g. 104, 112, 168, 248, 800, etc	E.g. 114, 157, 202, 156, 170, etc

3. Fill in the missing fractions in these calculations.

$\frac{3}{8} + \boxed{\mathbf{\frac{4}{8}}} = \frac{7}{8}$

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

$\frac{2}{5} + \boxed{\mathbf{\frac{5}{10}} \text{ or } \mathbf{\frac{1}{2}}} = \frac{9}{10}$

4. Tilly has some cards with Roman numerals on. Order them from smallest to largest.

LXXIV	CXI	MX	LVII	XCVI

smallest largest

LVII	**LXXIV**	**CXI**	**XCVI**	**MX**

5. Ben is thinking of a number. He says, "30% of my number is 78."

What is 55% of Ben's number?

78 ÷ 3 = 26 = 10%

26 ÷ 2 = 13 = 5%

26 x 5 = 130 = 50%

130 + 13 = 143 = 55%

6. In this sequence, the rule to get to the next number is:

multiply by 3, then subtract 6

Use the rule to work out the missing numbers.

7	**15**	39, 111	**327**