

Key Stage 4 Numeracy Booklet



Name: _____

Form: _____

Room: _____

Review Tutor: _____

If you need to practise any topic areas please use MyMaths or see your class teacher.



Username: _____

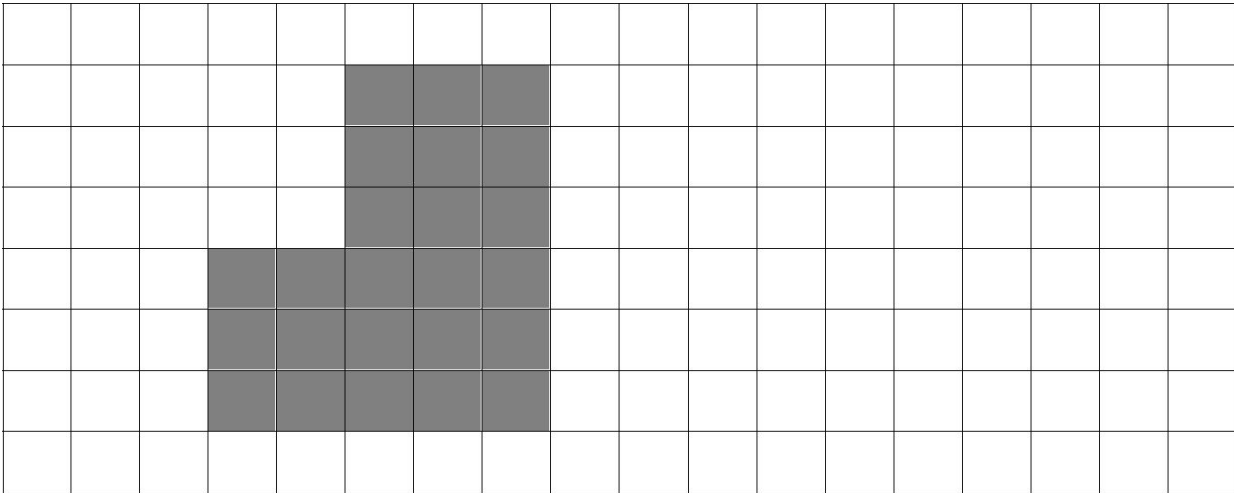
Password: _____

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Week 1

- 1) a) Find the area and perimeter of this shape drawn on the centimetre square grid.



Area _____

Perimeter _____ **(Remember your units of measure)**

- b) On the grid draw a shape with an area of 24cm^2 .

- 2) a) Write down the number 36780 in words.

b) What is the value of the number 3 in 36780? _____

c) Round 36780 to the nearest thousand. _____

- 3) **8 9 13 15 17 24 25 32 42 48**

a) From the list above, write down all the prime numbers.

Mr Burgess crosses out all the multiples of 2 from the list. He then crosses out all the multiples of 3 from the list.

b) How many numbers did Mr Burgess cross out? _____

c) How many numbers did Mr Burgess not cross out? _____

Week 2

1) a) What is a multiple? _____

2 18 24 25 27 32 64

From the list of numbers above:

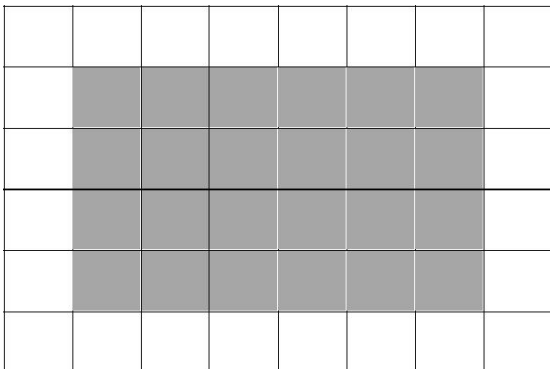
b) Write down a multiple of 9. _____

c) Write down a factor of 48. _____

d) Write down a square number. _____

e) Write down a prime number. _____

2) Using the image below:



a) Name the shaded shape.

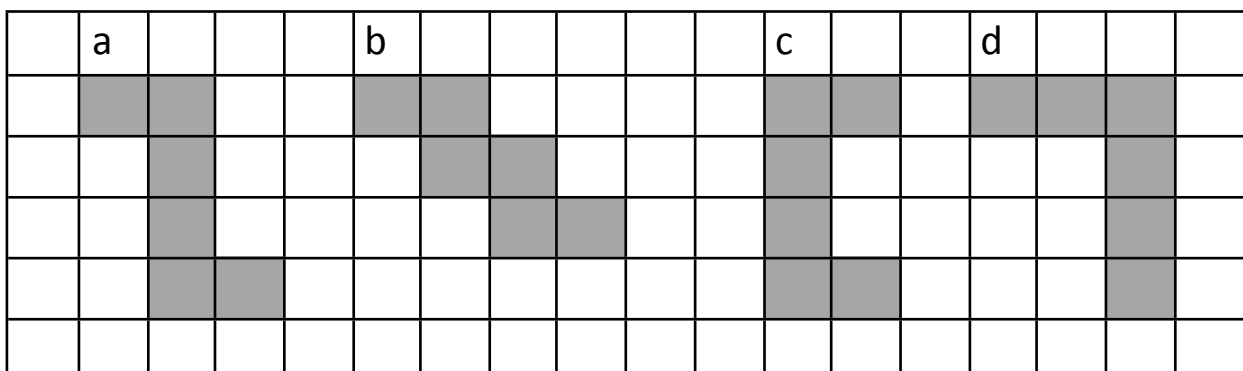
b) What is the order of rotational symmetry of this shape?

c) Draw and label a vertical line of symmetry on the shape.

d) Draw and label a horizontal line of symmetry on the shape.

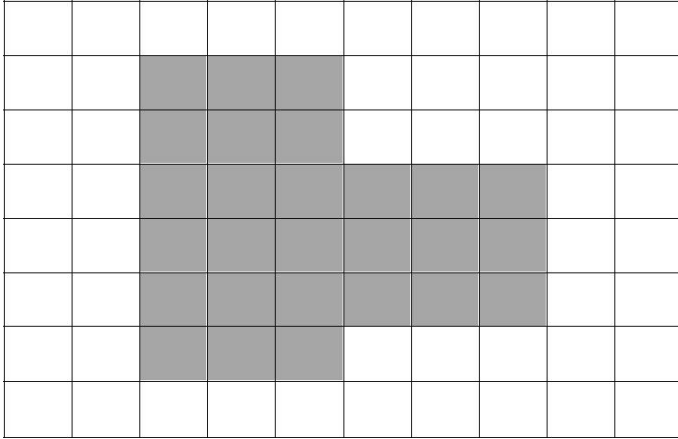
e) What fraction of the grid is shaded? _____

3) Which of the nets, from the diagram below, will make a cube? _____



Week 3

1) Find the area and perimeter of this shape drawn on the centimetre square grid.



a) Area _____

b) Perimeter _____

(Remember your units of measure.)

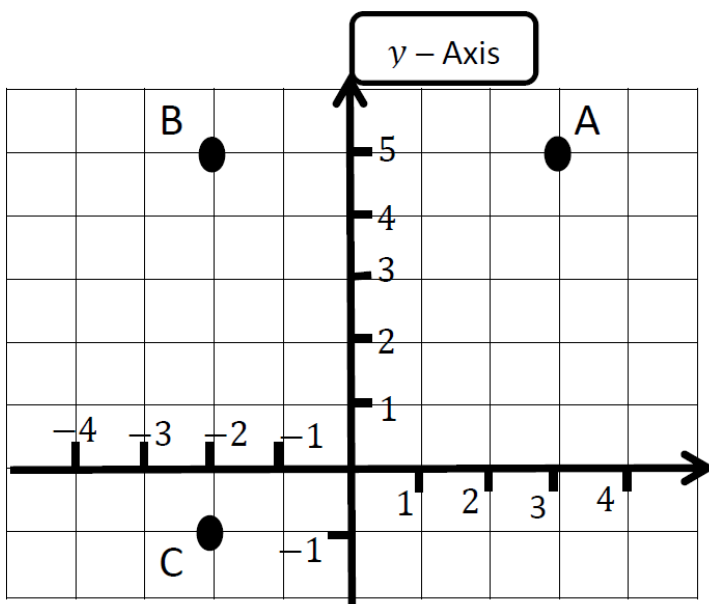
c) What fraction of the grid is shaded? _____

2)a) Write down the number 39450 in words.

b) What is the value of the number 9 in 39450? _____

c) Round 39450 to the nearest thousand. _____

3)



Name the co-ordinates of

a) Point A (__, __)

b) Point B (__, __)

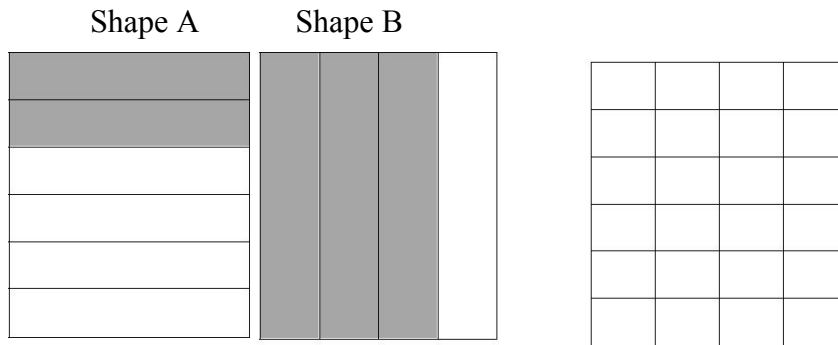
c) Point C (__, __)

d) ABCD is a rectangle, plot point D and draw the rectangle

e) What are the co-ordinates of point D? _____

Week 4

1)a) What fraction of each of shapes A and B is shaded?



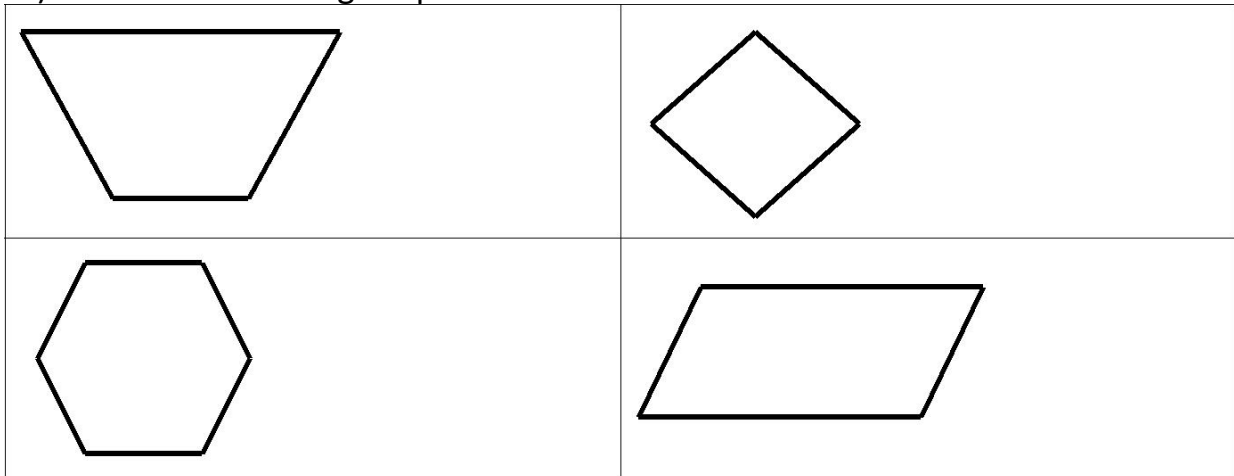
Shape A _____

Shape B _____

b) On the grid shade a fraction between shape A and shape B.

b) What is your fraction? _____

2) Name the following shapes



3) Below is a two-way table. Fill in the gaps.

	Swimming	Tennis	Athletics	Total
Female			19	
Male	36	42		
Total	79		54	200

4) Find the perimeter and area of the following shape:

a) Perimeter _____

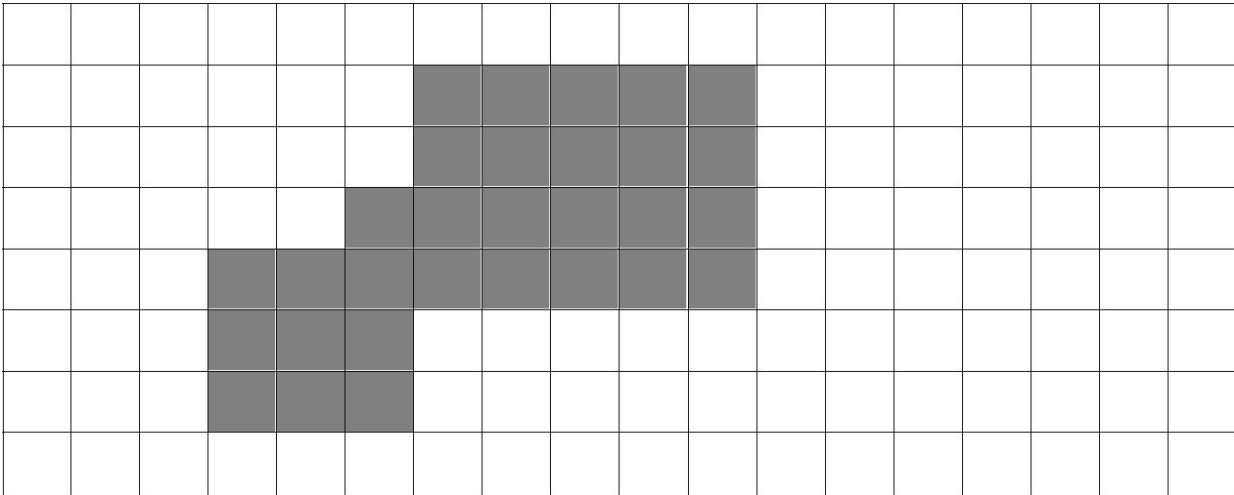
b) Area _____

c) What is the name of the shape? _____



Week 5

1) Find the area and perimeter of this shape drawn on the centimetre square grid.



Area _____

Perimeter _____ (Remember your units of measure.)

2) **8 5 11 16 19 21 24 35 48**

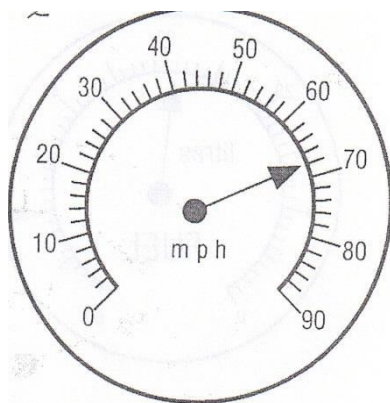
a) Write down the prime numbers from the list above.

Mrs Jones crosses out all the multiples of 4 from the list.
She then crosses out all the multiples of 5 from the list.

b) How many numbers did Mrs Finch cross out? _____

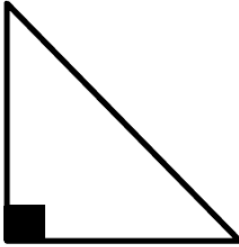
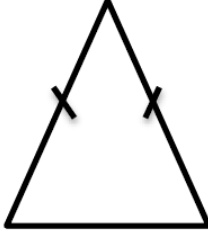
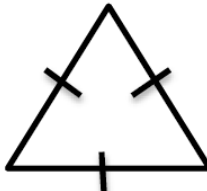
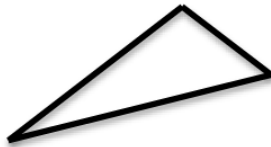
c) How many numbers did Mrs Jones not cross out? _____

3) Write down the speed shown by the arrow. _____

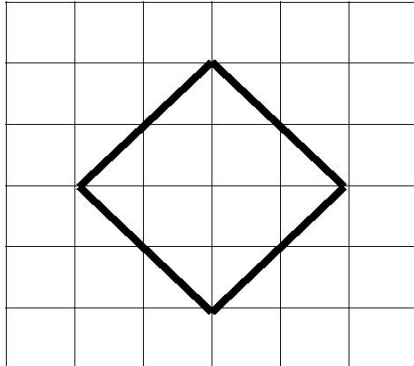


Week 6

- 1) Identify each triangle and write down one property for each.
 (How would you describe the triangle to someone who couldn't see?)

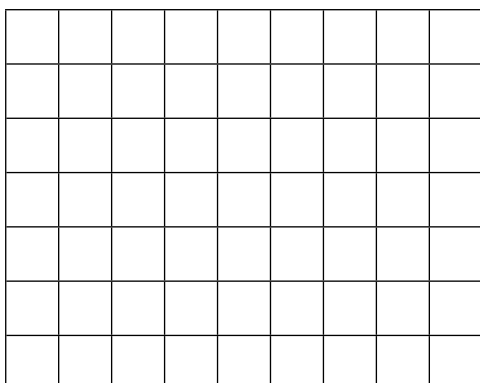
	Name Property		Name Property
	Name Property		Name Property

- 2) Using the image below



- a) Name the shape. _____
- b) What is the order of rotational symmetry of the shape? _____
- c) How many lines of symmetry does the shape have? _____
- d) Draw a line of symmetry on the shape.

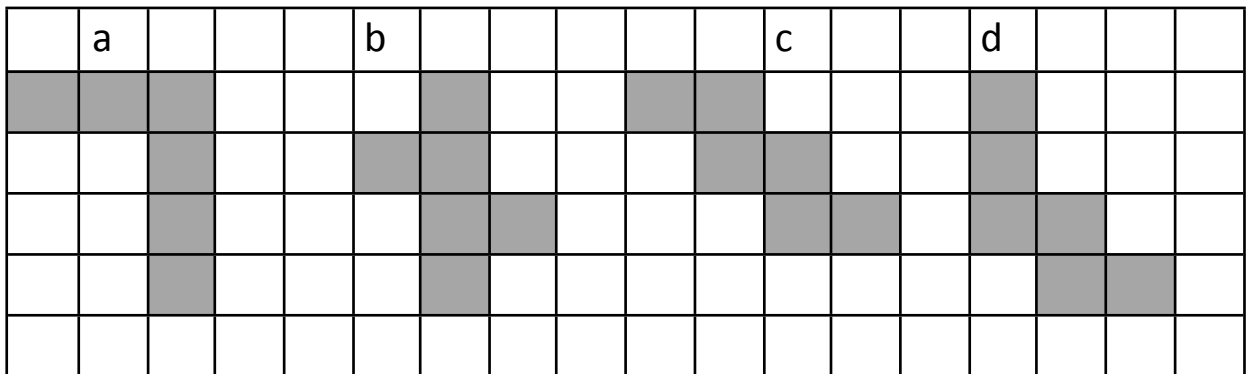
3. Explain what is meant by perimeter. _____



- b) On the centimetre square grid draw a shape with a perimeter of 24cm.
- c) What is the area of the shape? _____

Week 7

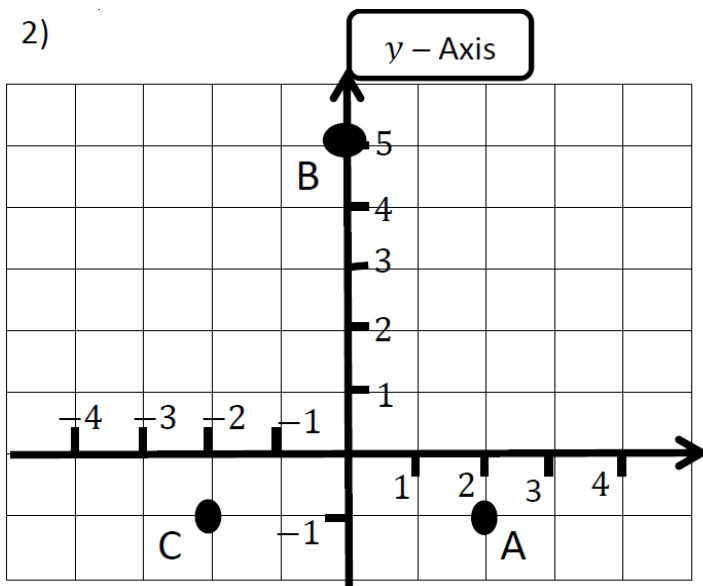
1) a) Which of these nets will make a cube? _____



b) What is the area and perimeter of

Net	Area	Perimeter
a	_____ cm ²	_____ cm
b	_____ cm ²	_____ cm
c	_____ cm ²	_____ cm
d	_____ cm ²	_____ cm

2)



Name the co-ordinates of

a) Point A (__ , __)

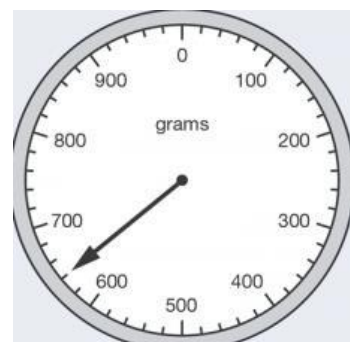
b) Point B (__ , __)

c) Point C (__ , __)

d) The points ABC make a shape _____ .

Draw and name the shape. _____

3) Write down the weight shown by the arrow.



Week 8

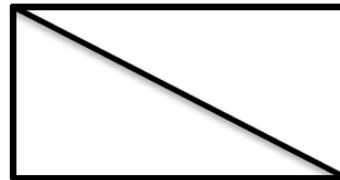
1) Simplify each of the following expressions:

a) $4 \times a$	b) $3a + 2a$	c) $2 \times 3 \times a$	d) $8a - 3a$	e) $3e + 4d - 2e + 3d$

2) a) If the area of a rectangle is 36cm^2 . What lengths could the sides be?

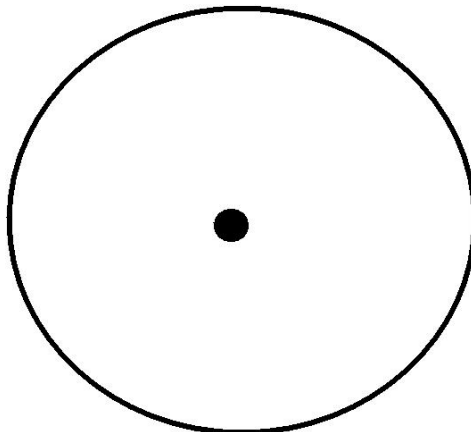


b) If I cut the rectangle into two equal sized triangles what would the area of each triangle be?



3) Draw and label the following on the circle:

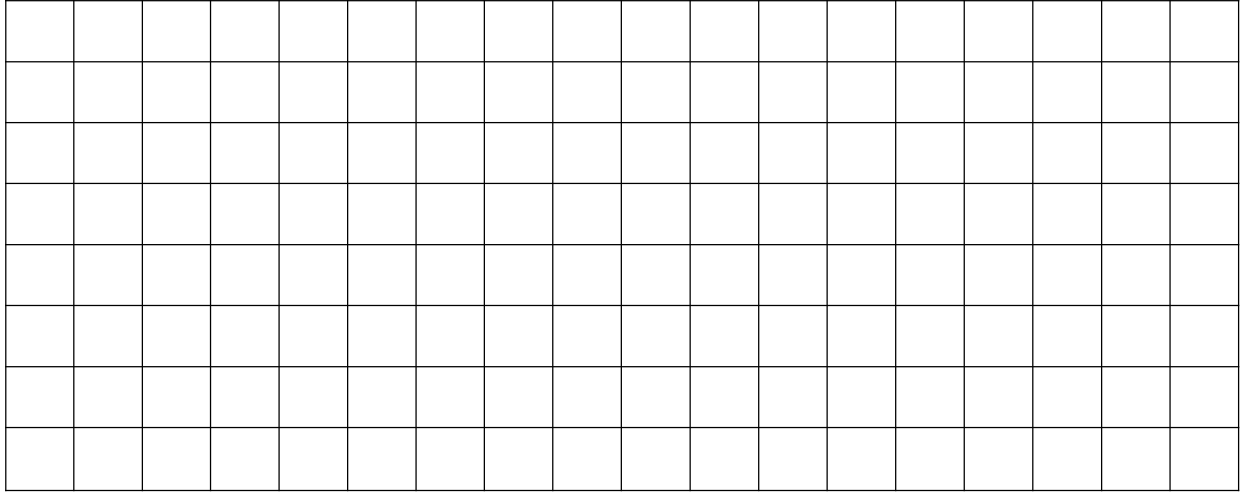
tangent chord segment



4) Miss Wilson needs to buy 40 hoodies for the Disneyland Paris trip. Each hoodie costs £15. She only has £400 to spend. Has she got enough money? **Explain your answer.**

Week 9

1)) Draw a shape on the centimetre square grid with a perimeter of 20cm



b) What is the area of the shape you have drawn? _____

2) a) Write down the number 55861 in words.

b) What is the value of the number 6 in 55861? _____

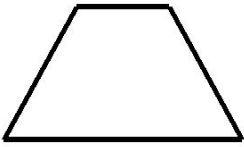
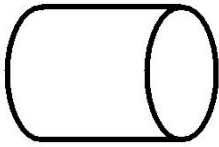
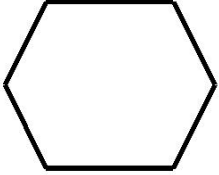

c) Round 55861 to the nearest thousand. _____

3) Write down the weight shown by the arrow. _____

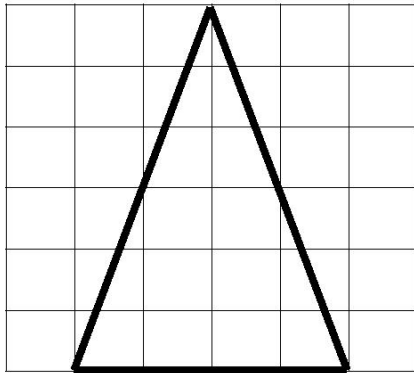


Week 10

1) Name the shapes:

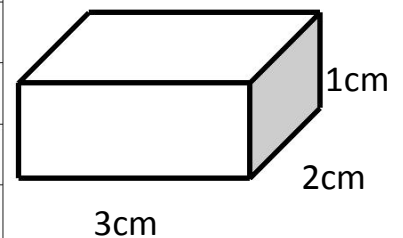
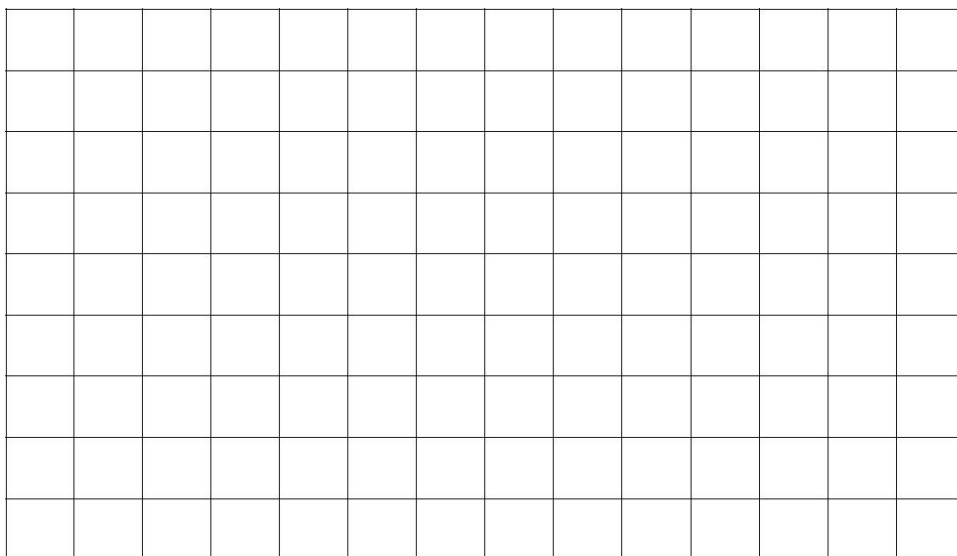
	Name:		Name:
	Name:		Name:

2) Using the image below:



- a) Name the shape. _____
- b) What is the order of rotational symmetry of the shape? _____
- c) How many lines of symmetry does the shape have? _____
- d) Draw and label a line of symmetry

3a) Draw the net of the cuboid on the centimetre square grid.



b) What is the volume of the cuboid? _____

Week 11

1) a) What is a factor? _____

5 9 14 18 21 25 81

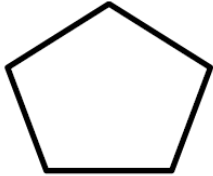
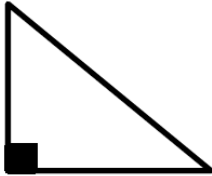
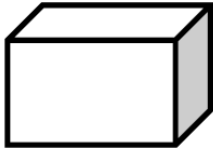
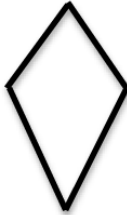
From the numbers above:

b) Write down a multiple of 7. _____


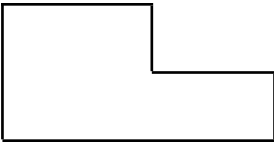
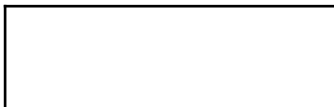
c) Write down a factor of 28. _____

d) Write down a square number. _____

2 Name the shapes

	Name		Name
	Name		Name

3) Find the area of and perimeter of each of the following shapes:

 <p style="text-align: center;">5cm</p> <p style="text-align: right;">3cm</p>	<p>Area =</p> <p>Perimeter =</p>
 <p style="text-align: center;">8cm</p> <p style="text-align: left;">3cm</p> <p style="text-align: right;">1cm</p> <p style="text-align: center;">4cm</p>	<p>Area =</p> <p>Perimeter =</p>
 <p style="text-align: center;">$2z + 4$</p> <p style="text-align: left;">3</p>	<p>(Write an expression for the)</p> <p>Area =</p> <p>Perimeter =</p>

Week 12

1) Complete the following table:

Fraction	Decimal	Percentage
$\frac{1}{2}$		50%
$\frac{1}{4}$	0.25	
	0.1	10%
$\frac{3}{10}$		
		1%

2a) What is a prime number? _____

6 9 11 15 17 21 24 35 40

From the numbers above:

b) Write down a prime number. _____

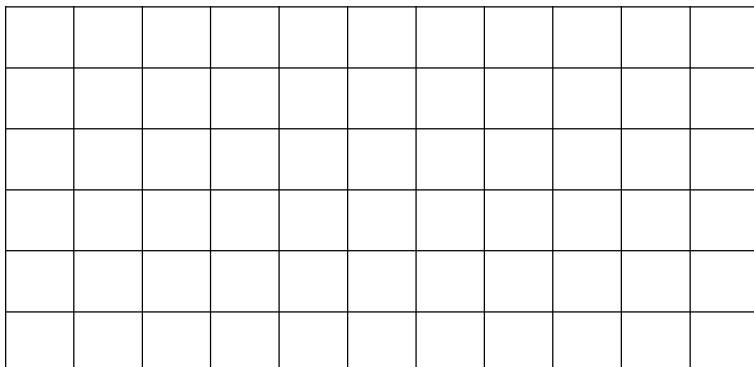
Mr Travis crosses out all the multiples of 3 and 5 from the list.

c) How many numbers did Mr Travis cross out? _____

d) How many numbers did Mr Travis not cross out? _____

3) a) Draw a shape on the centimetre square grid with an area of 20cm².

b) What is the perimeter of the shape you have drawn? _____



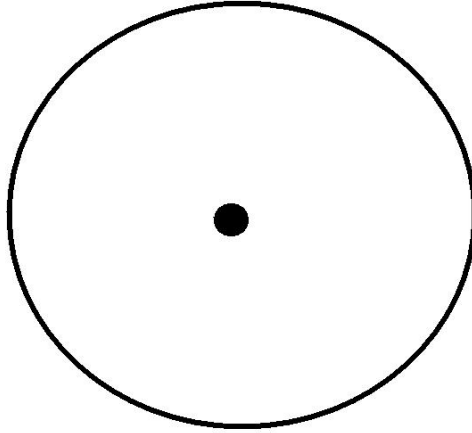
c) What fraction of the grid does your shape take up?

—

Week 13

1) Draw and label the following on the circle.

arc diameter sector radius



2) Mr Tsang buys four new computers for £1000.

a) How much does it cost for one computer? _____

b) How much would it cost for nine computers? _____

3) Complete these grid multiplication tables by filling in the gaps

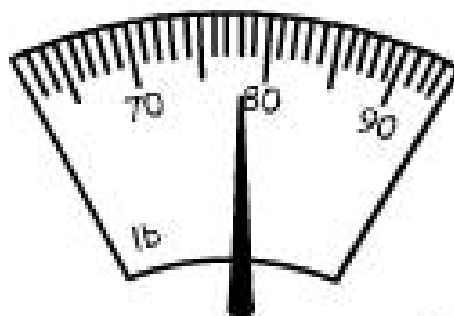
a) _____ x _____ = _____

	20	3
40		
6		

b) 54 x _____ = _____

	30	7

4) Read the following scale:



_____ lbs

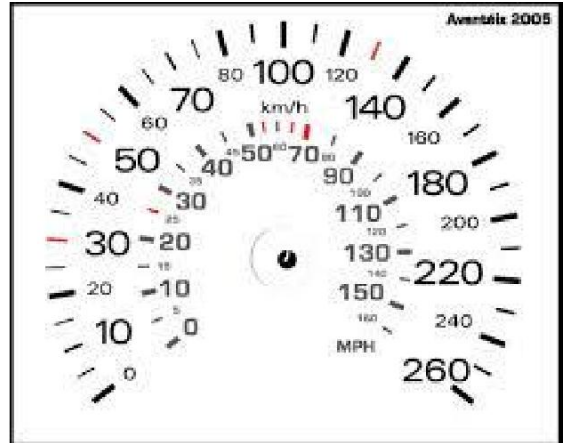
Week 14

1) By using the speedometer below. Approximate:

a) 70km/h into mph _____

b) 30mph into km/h _____

c) The speed limit in France is 80km/h. Mrs O'Grady is driving at 60mph, is she speeding? Explain your answer.



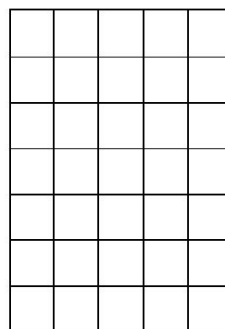
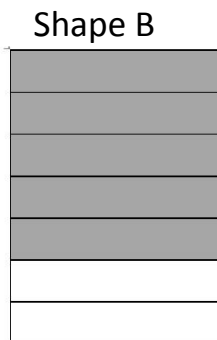
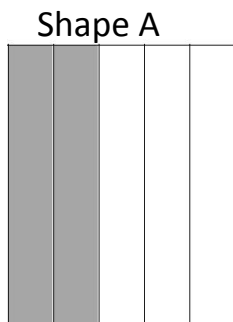
2) Mr Burgess needs to rent a van to transport all the maths textbooks from the Marsh House site to the Thames Road site. He has 50 sets of books to transport, each set weighing 3kg.

a) How much do the books weigh in total?

b) Miss Kerfoot advises Mr Burgess that the van can only carry 70kg at a time. How many journeys will Mr Burgess have to make?

c) There is 1.5miles between the Thames Road and Marsh House sites. How many miles will Mr Burgess travel in total. (He starts and finishes at the Marsh House site)

3) a) What fraction is shaded in the following shapes?



Shape A _____

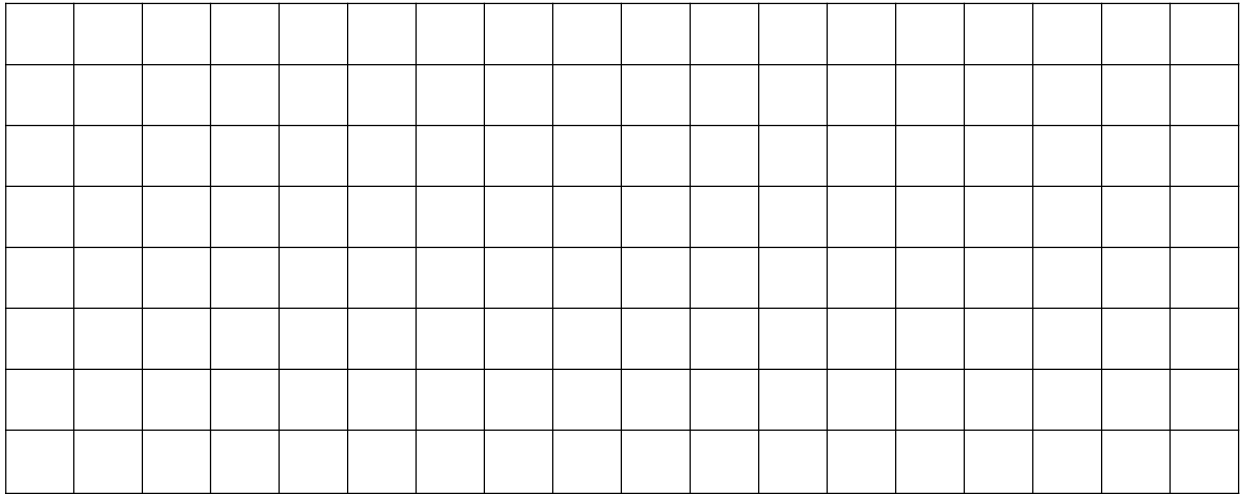
Shape B _____

b) On the grid shade a fraction between shape A and shape B.

c) What is your fraction? _____

Week 15

1) a) Draw a shape on the centimetre square grid with a perimeter of 24cm.



b) What is the area of the shape you have drawn? _____

2) Mrs Evans sells calculators for £6.20.

a) If Mrs Evans sells 3 calculators, how much money has she made?

b) Miss Westwell wants to buy 5 calculators to make up for those that pupils have not returned. She gives Mrs Evans £30 - is this enough?
(Explain your answer fully.)

Mrs Evans also sells revision guides for £2.99

c) A student wants to buy a revision guide and a calculator, but only has £10. Is this enough? **(Explain your answer fully.)**

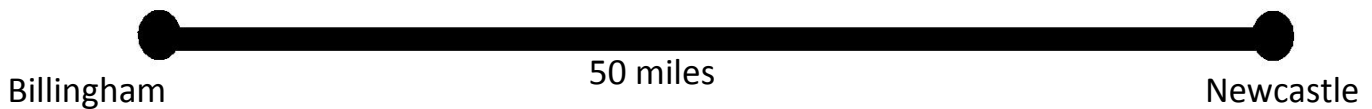
Week 16

- 1) Substitute $x = 5$, $y = 7$ and $z = -2$ into the following expressions. (**Swap the letters for the numbers and work out the answer.**)

a) $x + 6$	b) $3y$	c) $x + y$	d) $9 + z$
e) yx	f) $4x + 2z$	g) x^2	h) xyz

- 2) If chocolate bars cost £1.09 each and cans of pop cost 60p each:
- How much will it cost for 5 chocolate bars?
 - How much will it cost for 3 chocolate bars and 2 cans?
 - Mr Doyle only has £5. Does he have enough money to buy four chocolate bars and two cans? (**Explain your answer fully.**)

- 3) There is 50 miles between Billingham and Newcastle. Durham is half way between Billingham and Newcastle.

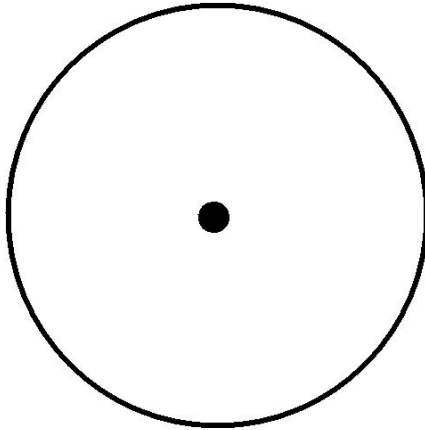


- How many miles is it from Billingham to Durham?
- Mr Cullen and Mr Killen go on a road trip to Newcastle. Mr Cullen starts at Durham and goes to Billingham to pick Mr Killen up from school. They both go to Newcastle and return to school on the same day. How many miles did
 - Mr Cullen travel?
 - Mr Killen travel?

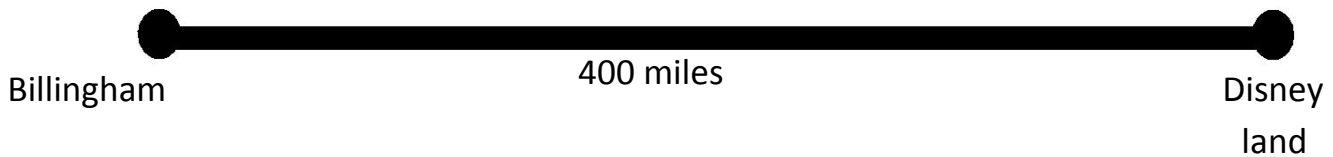
Week 17

1) Draw and label the following on the circle below:

diameter circumference arc tangent



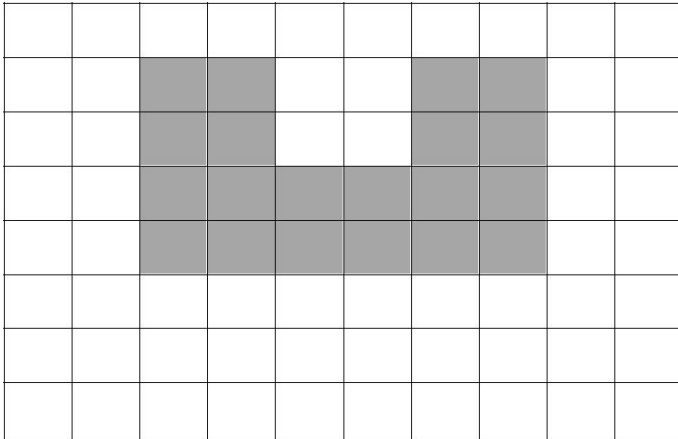
2) There is 400 miles between Billingham and Disneyland, Paris. The port of Dover is about half way between Billingham and Paris.



- c) How many miles is it from Billingham to Dover? _____
- d) How many miles is it from Billingham to Disneyland and back to Dover?
- e) Mrs Hill and Miss Harley are going to Disneyland, and can't wait to meet Mickey Mouse. How long will it take them to get from Dover to Disneyland if it takes 20 minutes to travel 5 miles?
- f) What speed are they traveling at?
(Remember Speed, Distance and Time triangle.)

Week 18

1) Find the area and perimeter of this shape drawn on the centimetre square grid.



a) Area _____

b) Perimeter _____

(Remember your units of measure.)

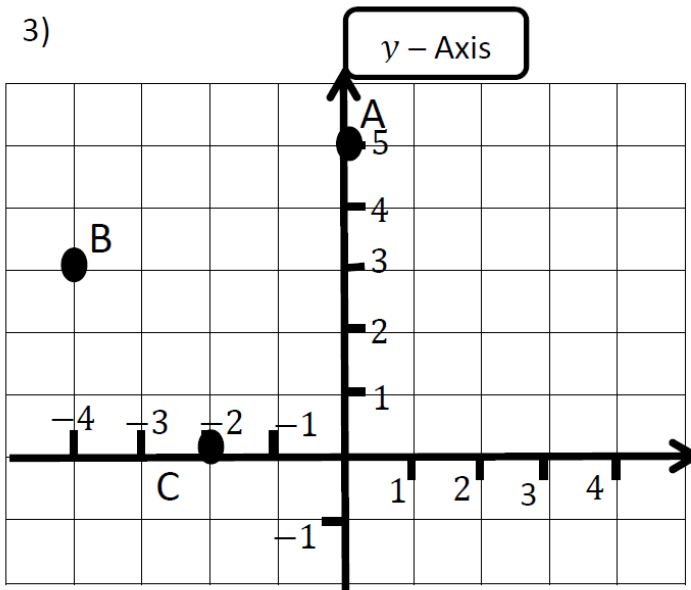
c) What fraction of the grid is shaded? _____

2) a) Write down the number 19823 in words.

b) What is the value of the number 8 in 19823? _____

c) Round 19823 to the nearest thousand. _____

3)



Name the co-ordinates of

f) Point A (__, __)

g) Point B (__, __)

h) Point C (__, __)

x - Axis

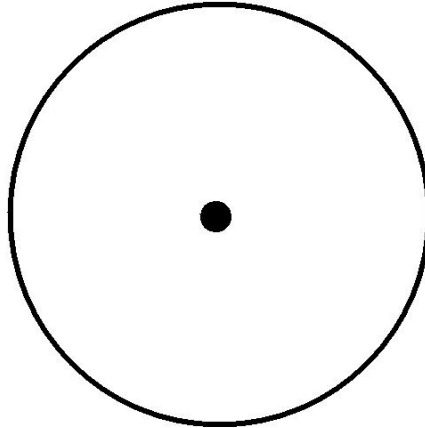
ABCD is a rectangle, plot point D and draw the rectangle

What are the co-ordinates of point D? _____

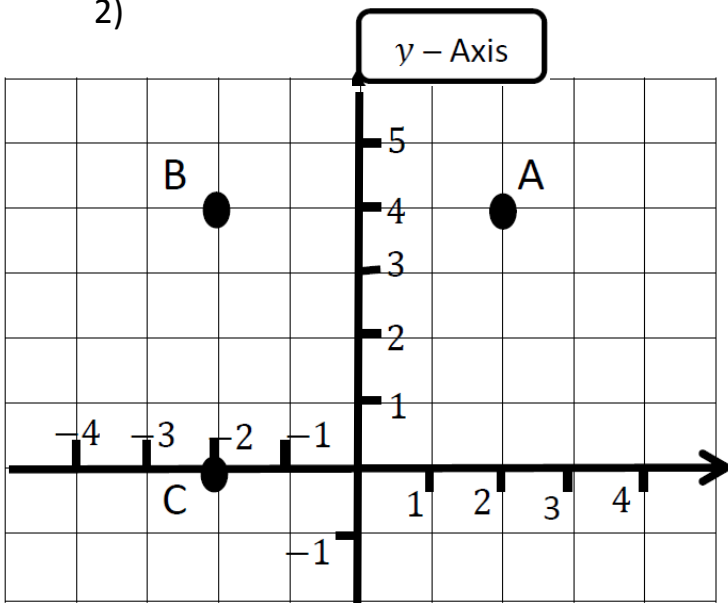
Week 19

1) Draw and label the following on the circle below.

diameter radius chord sector



2)



Name the co-ordinates of

a) Point A (__, __)

b) Point B (__, __)

c) Point C (__, __)

d) ABCD is a rectangle, plot point D and draw the rectangle

e) What are the co-ordinates of point D? _____

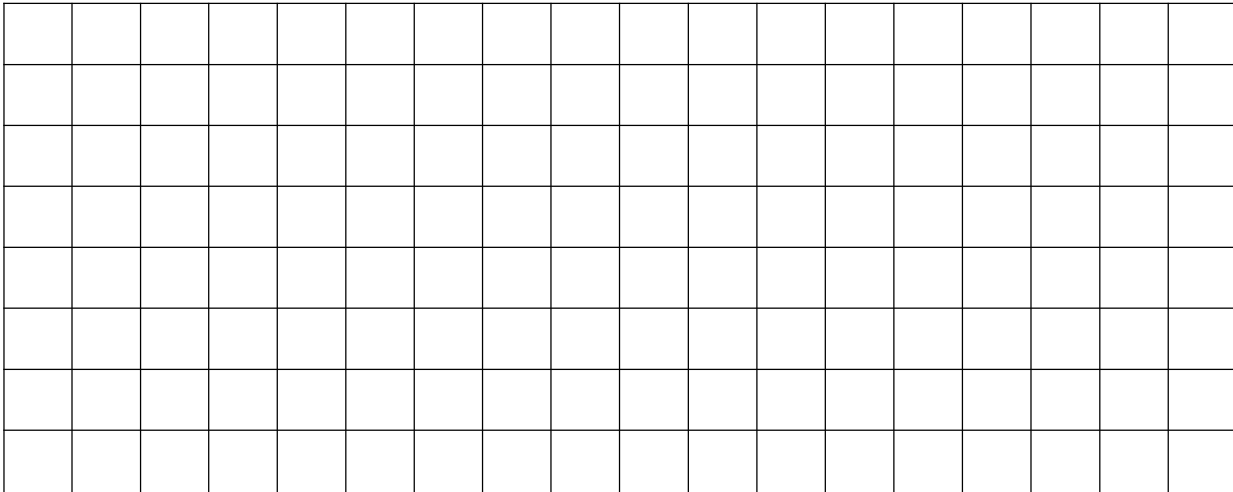
3) a) Write down the number 57831 in words.

b) What is the value of the number 7 in 57831? _____

c) Round 57831 to the nearest thousand. _____

Week 20

1) a) Draw a shape on the centimetre square grid with a perimeter of 12cm.



b) What is the area of the shape you have drawn? _____

2) Mrs Finch has had to increase the price of calculators from £6.20 to £6.99

a) If Mrs Finch sells 3 calculators now, how much money has she earned?

b) How much extra is Mrs Finch now making when she sells 3 calculators?

Mrs Finch's revision guide price has also increased from £2.99 to £3.50

c) A student wants to buy a revision guide and a calculator, but only has £10.
Is this enough with the new prices? **(Explain your answer.)**