

Year 6 maths quiz: memory mastermind!

Multiplication and division vocabulary

- 1) List all the **factors** of 36: _____
- 2) List all the **common factors** of 24 and 32: _____
- 3) List all the **prime numbers** under 20: _____
- 4) What's a **composite number**? _____
- 5) What are the **prime factors** of 12? _____
- 6) List the first 6 **multiples** of 9: _____, _____, _____, _____, _____ and _____
- 7) What is the **lowest common multiple** of 4 and 6? _____
- 8) List 3 different **square numbers**: _____, _____ and _____
- 9) What is 3^3 ? _____

Fractions, decimals & percentages

Complete the conversion grid.

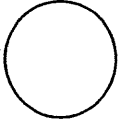
Fraction	Decimal	Percentage	Operation
$\frac{1}{2}$			
	0.2		
		1%	
			$\div 10$
$\frac{3}{4}$			$\div 4, \times 3$
	0.25		
		5%	

Angles

Complete the grid.

How many degrees...	
in a full turn?	°
in a half turn?	°
in a right angle?	°
in an acute angle?	°
in an obtuse angle?	°
in a reflex angle?	°
on a straight line?	°
inside a triangle?	°
inside a quadrilateral?	°

Shape vocabulary

Draw a horizontal line.	Draw a vertical line.	Draw a pair of parallel lines.	Draw a pair of perpendicular lines.	Label this circle with its circumference, radius and diameter .
				

Roman numerals

Complete the grid.

1 = I	= X	100 =	1000 =
= V	50 =	= D	

2D shapes

Complete the grid.

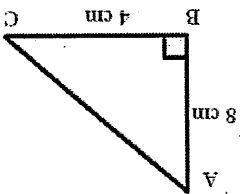
Name	No. of sides
octagon	5
nonagon	7
quadrilateral	10
hexagon	

What's the difference between a regular an irregular polygon?

What is a polygon?

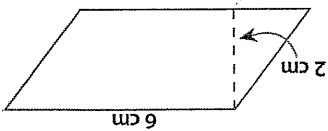
What is the area of this triangle?

Area = _____



What is the area of this parallelogram?

Area = _____



Below each shape, write its name (don't just write 'triangle' for the first 3 – be specific!)

Measurement conversions

1) List all the months that have exactly 31 days:

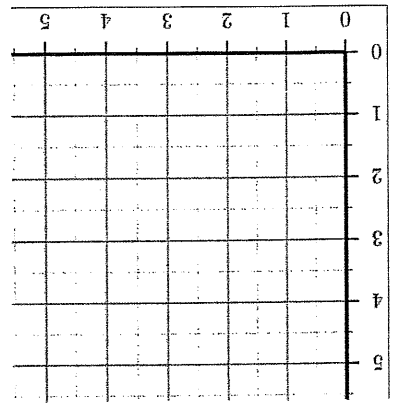
2) List all the months that have exactly 30 days:

3) What's different about a leap year?

Complete the conversions.

1cm = mm	1km = m	1 litre = ml
1m = cm	1 mile = km	1 kilogram = g

Co-ordinates Write an X on the co-ordinate (3,5).



The mean

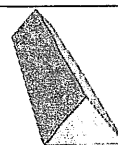
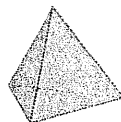
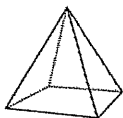
What is the mean of the following numbers?

5, 7, 2, 8, 3

Mean = _____

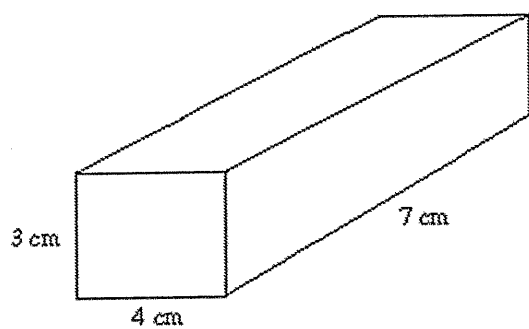
3D shapes

Complete the grid.



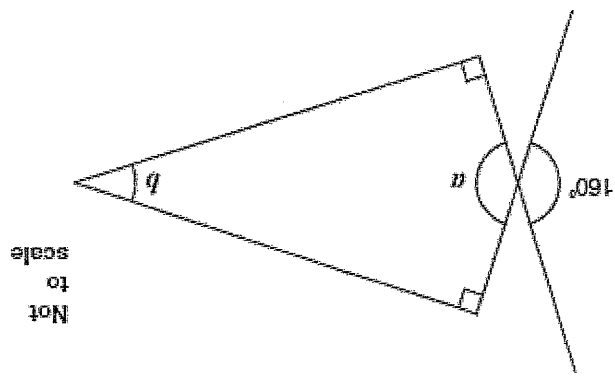
What is this shape called?			
How many faces does it have?			
How many edges does it have?			
How many vertices does it have?			

What's the volume of this cuboid? _____



SATs Papers - Geometry

Calculate the size of angles a and b in this diagram



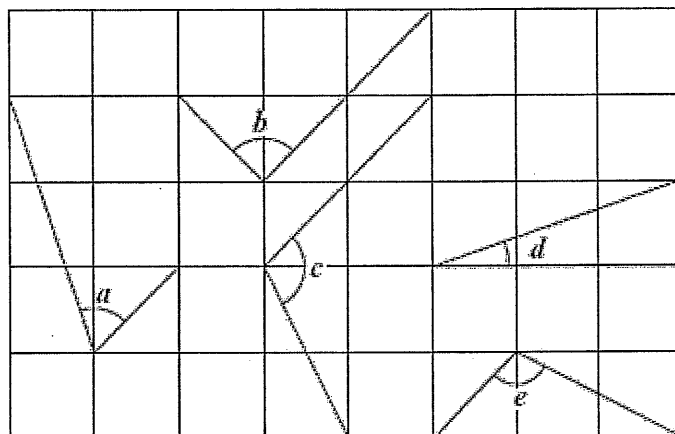
$a =$

1 mark

$b =$

1 mark

Here are five angles marked on a grid of squares.



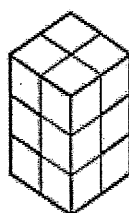
Write the letters of the angles that are obtuse.

1 mark

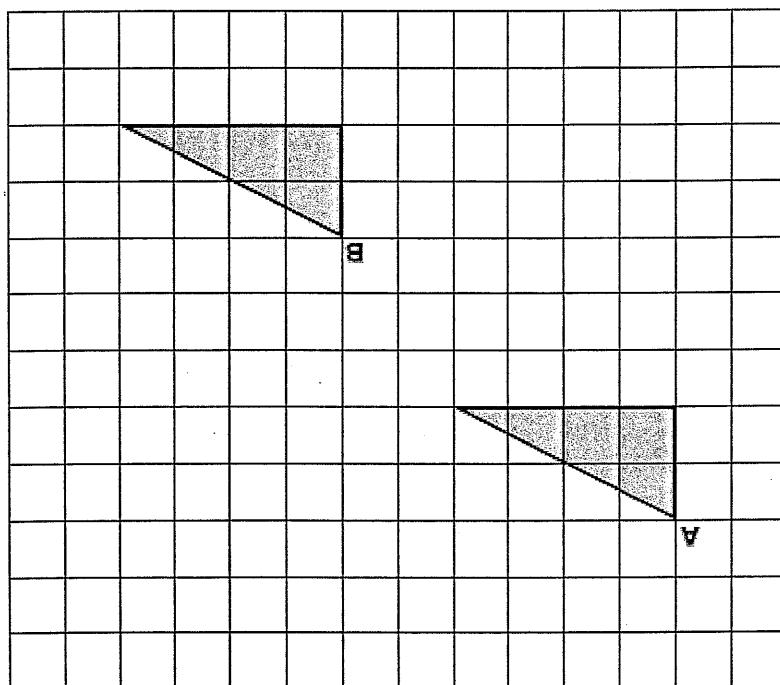
Write the letters of the angles that are acute.

1 mark

Emma makes a cuboid using 12 cubes.

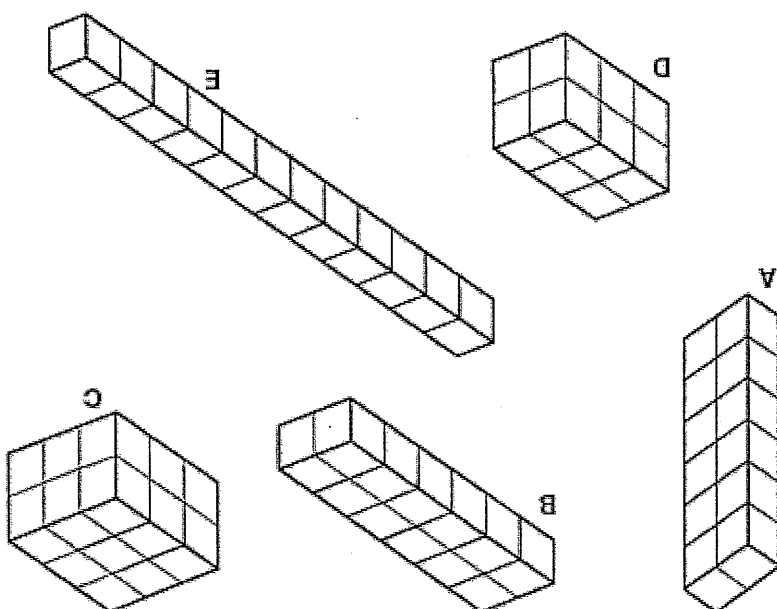


Write the letter of the cuboid that has a different volume from Emma's cuboid.



A triangle is translated from position A to position B.

1 mark



Complete the sentence.

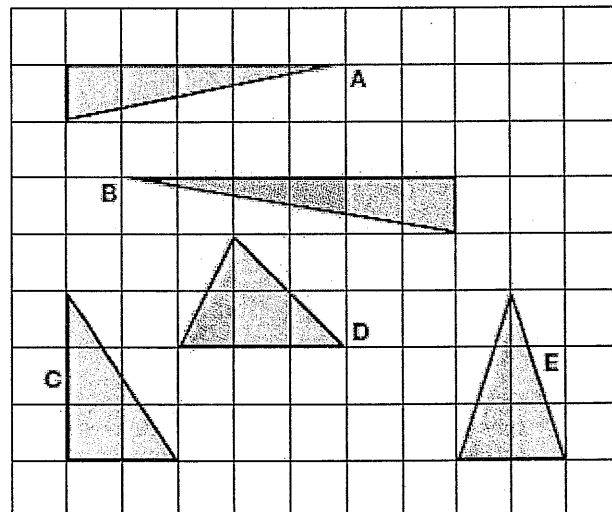
The triangle has moved

squares to the right

and

squares down.

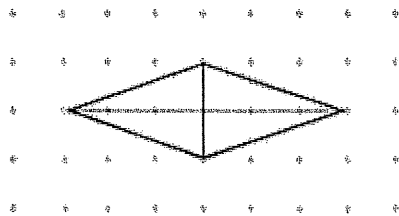
Here are five triangles on a square grid.



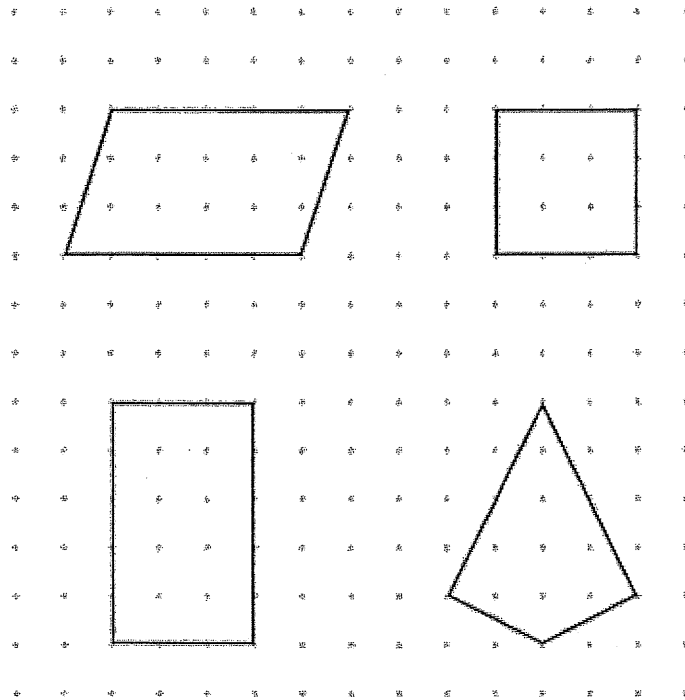
Four of the triangles have the same area.

Which triangle has a different area?

The diagonals of this quadrilateral cross at right angles.



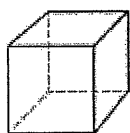
Tick all the quadrilaterals that have diagonals which cross at right angles.



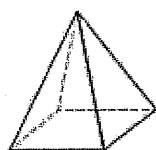
2 marks

Here are diagrams of some 3-D shapes.

Tick each shape that has the same number of faces as vertices.



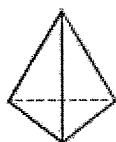
Cube

☐

Square-based pyramid

☐

Triangular prism

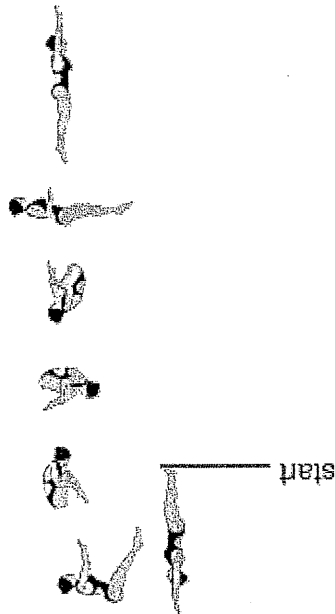
☐

Triangular-based pyramid

☐

2 marks

Layla completes one-and-a-half somersaults in a dive.



How many degrees does Layla turn through in her dive?

1 mark

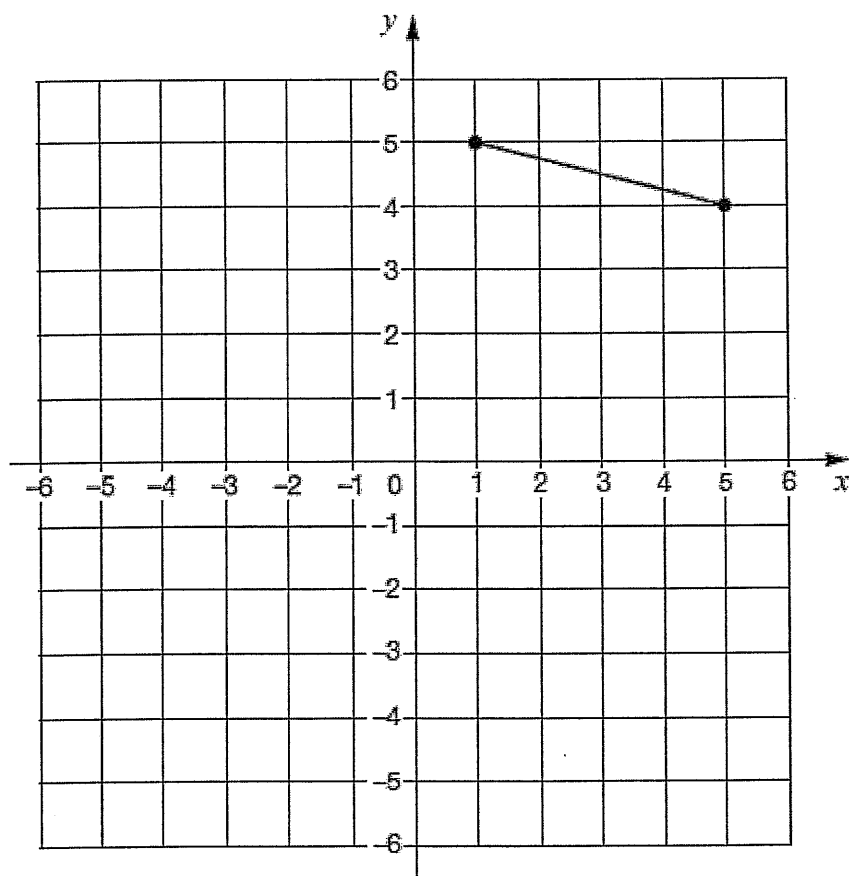
The vertices of a quadrilateral have these coordinates.

$(1, 5)$ $(5, 4)$ $(1, -3)$ $(-3, 4)$

One side of the quadrilateral has been drawn on the grid.

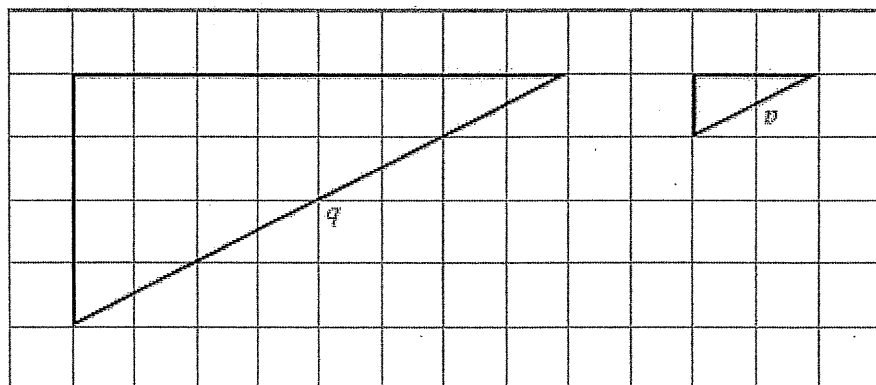
Complete the quadrilateral.

Use a ruler.



1 mark

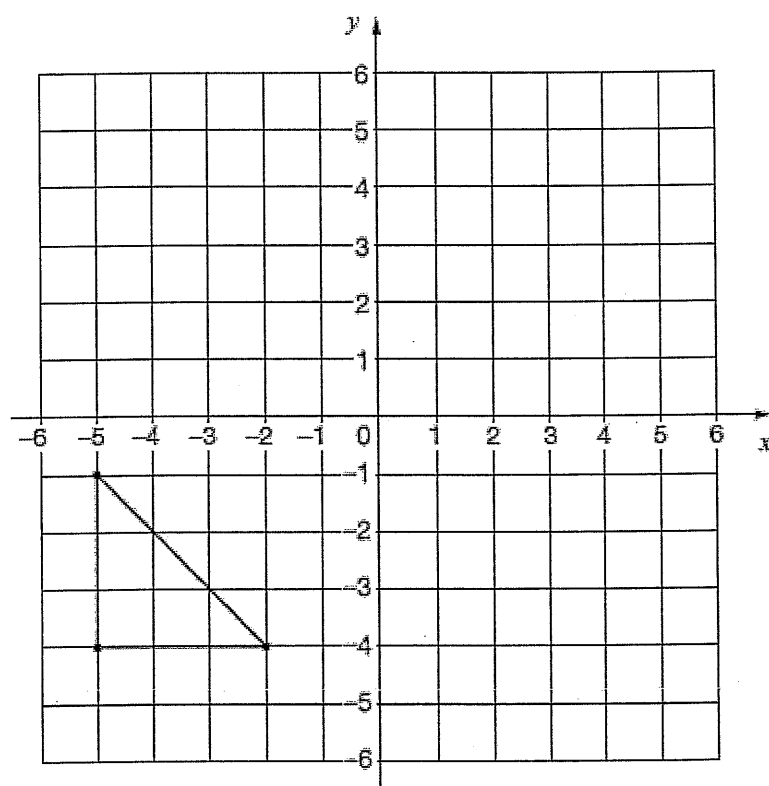
Here are two similar right-angled triangles.



Write the ratio of side a to side b .

$$\boxed{} : = a : b$$

Here is a triangle drawn on a coordinate grid.



1 mark

The triangle is translated **7 right** and **5 up**.

Draw the triangle in its new position.

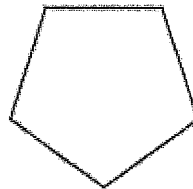
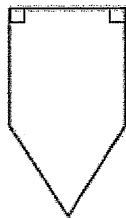
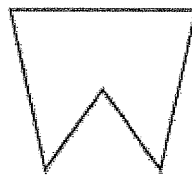
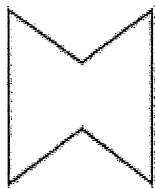
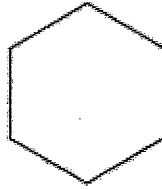
A C E L Z

1 mark

Circle the letter below that has both parallel and perpendicular lines.

Look at the letters below.

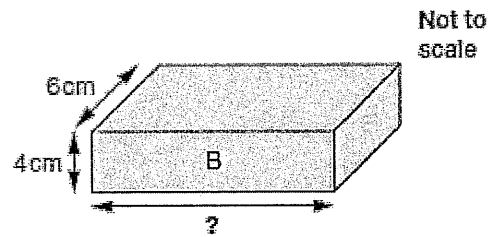
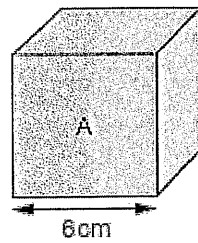
1 mark



Circle the pentagon with exactly four acute angles.

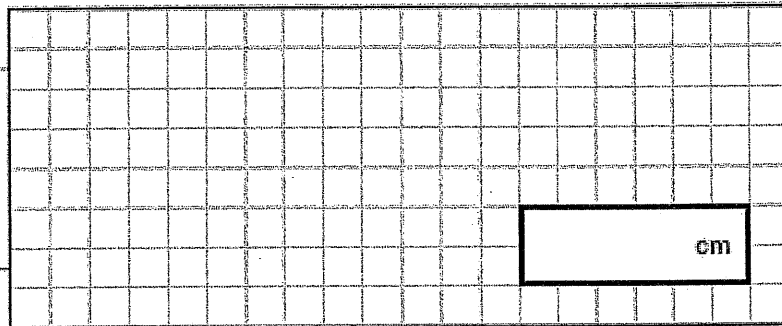
24

Cube A and cuboid B have the same volume.



Calculate the missing length on cuboid B.

Show
your
method



2 marks

