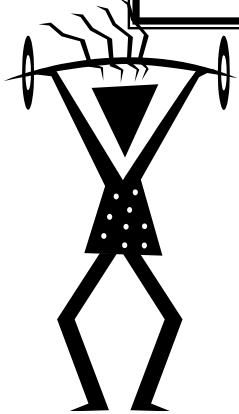


Mathsercise

Revision Practice
for Target C grade
GCSE Geometry

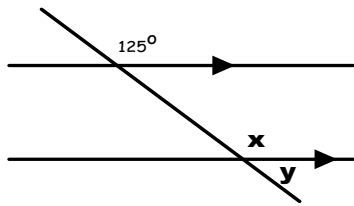




Mathsercise-C

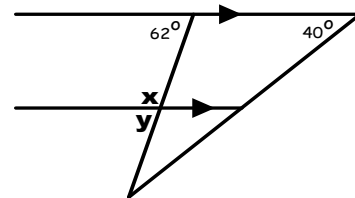
Angles

Work out the size of angles x and y .
Give reasons for your answers



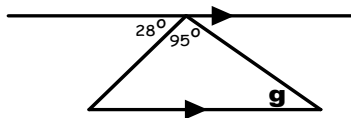
Angles **1**

Work out the size of angles x and y .
Give reasons for your answers



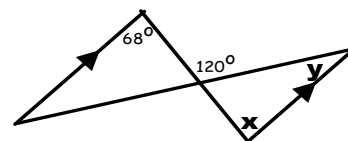
Angles **2**

Find the angle marked g . Give a reason
for your answers



Angles **3**

Find angles x and y .
Give reasons for your answers



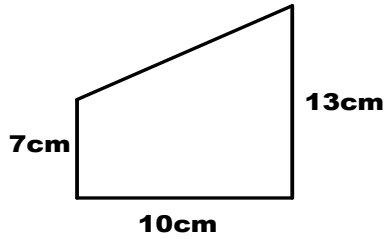
Angles **4**



Mathsercise-C

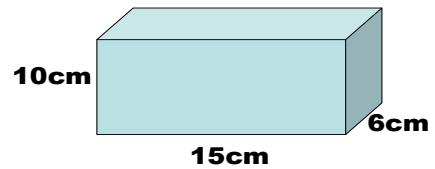
Area & Volume

Work out the area of this trapezium



Area & Volume **1**

Work out the volume of this cuboid



Area & Volume **2**

A cuboid has:
Height = 3m
Length = 9m
Width = 5m
What is the volume?



Area & Volume **3**

A cuboid has:

Volume = 160cm^3
Length = 8cm
Height = 4cm

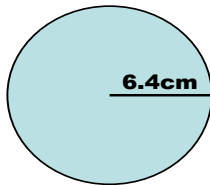
Work out the width of the cuboid



Area & Volume **4**

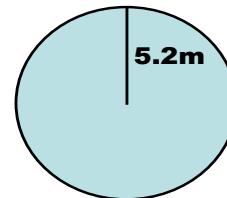


The radius of a circle is 6.4cm
Work out the area of the circle (to 3sf)



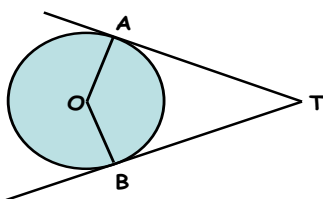
Circles **1**

The radius of a circle is 5.2m
Work out the circumference of the circle (to 2 d.p)



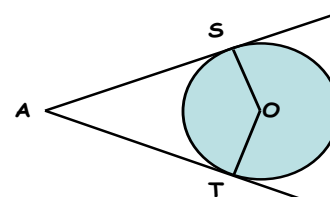
Circles **2**

AT and BT are tangents to a circle centre O
If angle AOB is 140° , then name any right angles, and find the size of angle ATB



Circles **3**

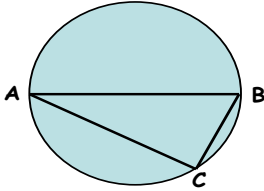
AS and AT are tangents to a circle centre O
Calculate the size of angle SAO if angle SOA is equal to 48°



Circles **4**

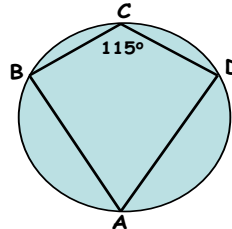


If AB is the diameter of the circle, give a reason why angle ACB is a right angle



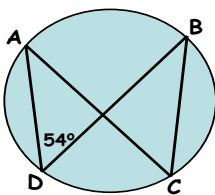
Circle Geometry **1**

Given angle BCD equals 115°
Work out the size of angle BAD and give a reason for your answer



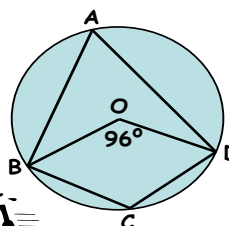
Circle Geometry **2**

A, B, C and D are points on a circle.
Work out angle ACB and give a reason for your answer



Circle Geometry **3**

In the circle, centre O, the angle $BOD = 96^\circ$
Work out angles BAD and BCD



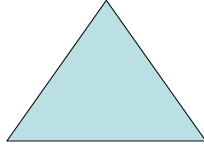
Circle Geometry **4**



Mathsercise-C

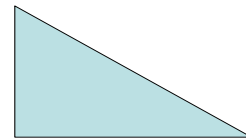
Construction

Use a ruler and a compass to construct an equilateral triangle of side length 3cm



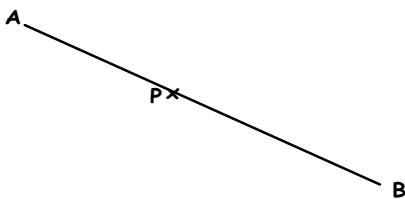
Construction **1**

Construct a triangle of sides 3cm, 4cm, and 5cm



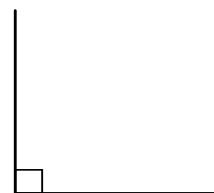
Construction **2**

Use a ruler and compasses to construct a perpendicular to the line AB at point P



Construction **3**

Use a ruler and compasses to construct a right angle



Construction **4**



Mathsercise-C

Elevations & Enlargements

On the grid enlarge the shape with a scale factor of 2

Elevations & Transformations **1**

On the grid enlarge the shape with a scale factor of $\frac{1}{2}$

Elevations & Transformations **2**

Given these elevations of a 3D shape, sketch the shape below

Plan Front Elevation Side Elevation

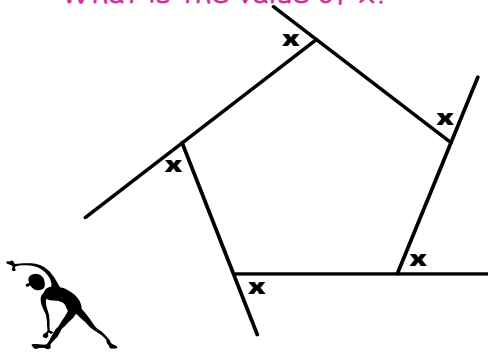
Elevations & Transformations **3**

The diagram shows a solid object
Draw a plan, front and side elevation for this object

Elevations & Transformations **4**



What do the external angles total?
What is the value of x ?



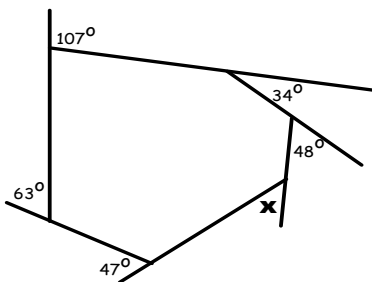
Polygons **1**

The exterior angle of a regular polygon is 45° . How many sides has the polygon?



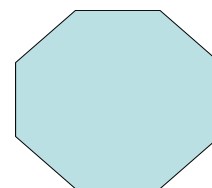
Polygons **2**

Find the value of x



Polygons **3**

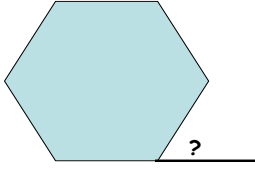
Find the size of the interior angle of this regular octagon



Polygons **4**

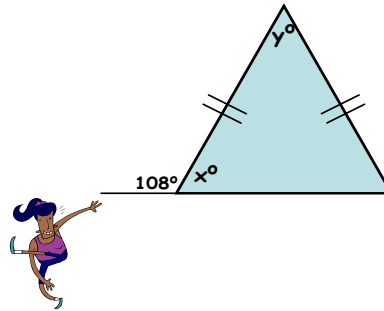


Work out the exterior angle of an hexagon



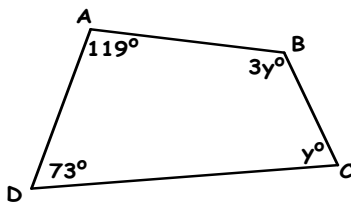
Polygons 2 **1**

Work out angles x and y and give reasons



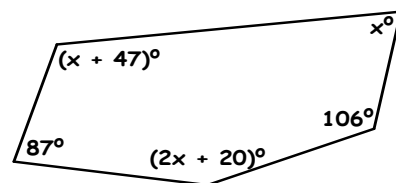
Polygons 2 **2**

ABCD is a quadrilateral. Work out the size of the largest angle



Polygons 2 **3**

Work out the size of the missing angles in this pentagon



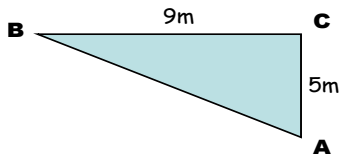
Polygons 2 **4**



Maths exercise-C

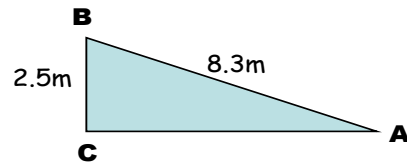
Pythagoras

Use Pythagoras to work out the length of AB



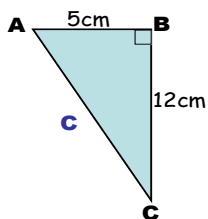
Pythagoras **1**

Work out the length of AC



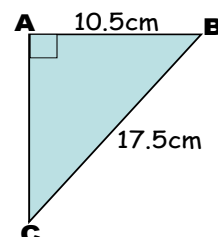
Pythagoras **2**

Find the length of AC in this right angled triangle



Pythagoras **3**

Find the length of AC in this right angled triangle



Pythagoras **4**

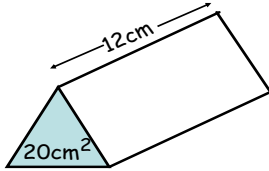


Mathsercise-C

Surface Area & Volume

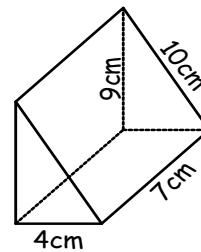
The area of the cross section of the triangular prism is 20cm^2 . The length is 12cm

Work out the volume of the prism



Surface Area & Volume **1**

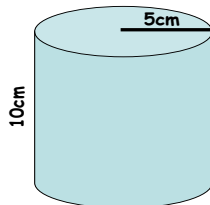
Work out the surface area of this triangular prism



Surface Area & Volume **2**

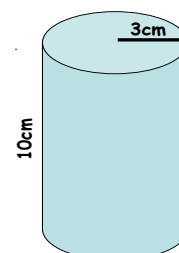
The cylinder has a height of 10cm and a radius of 5cm

Calculate the volume of the cylinder



Surface Area & Volume **3**

Calculate surface area correct to 3 sf



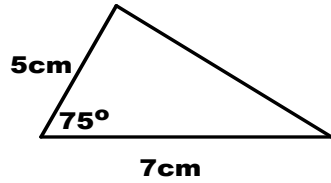
Surface Area & Volume **4**



Mathsercise-C

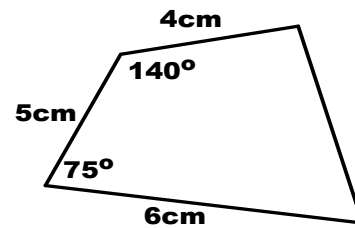
Scale
Drawing

Here is a sketch of a triangle.
Draw it accurately



Scale Drawing **1**

Here is a sketch of a quadrilateral.
Draw it accurately



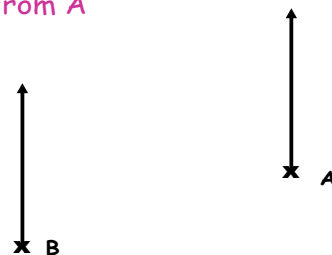
Scale Drawing **2**

Construct the triangle AB where -
 $AB = 5.3\text{cm}$, $BC = 6\text{cm}$,
angle $ABC = 112^\circ$



Scale Drawing **3**

Measure the bearings of A from B,
and B from A



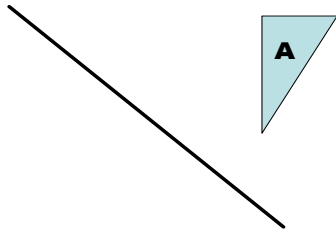
Scale Drawing **4**



Maths exercise-C

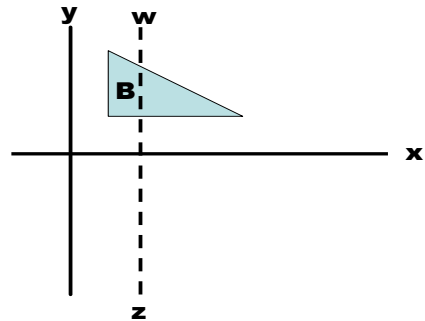
Transform 1

Draw a reflection of Triangle A in the given line



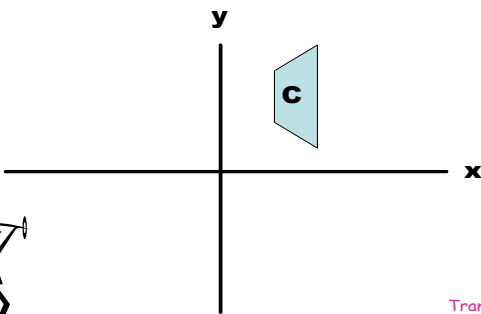
Transform **1**

Reflect triangle B in the line wz



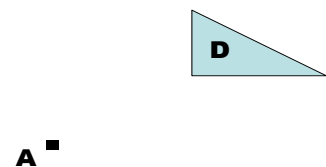
Transform **2**

- a) Draw a reflection of C in the y axis
- b) Rotate C 90° clockwise about the origin



Transform **3**

Rotate triangle D 90° anticlockwise about the point A.



Transform **4**

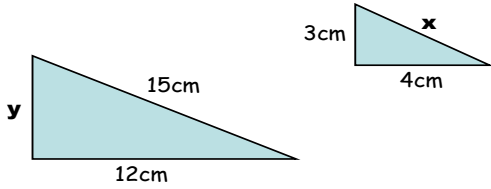


Mathsercise-C

Transform 2

The big triangle is a scale factor enlargement of the smaller triangle

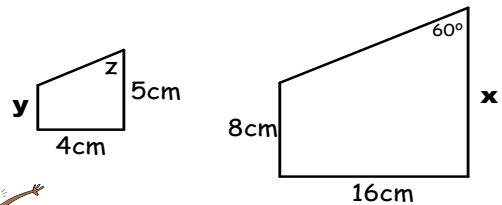
Find x and y



Transformations **1**

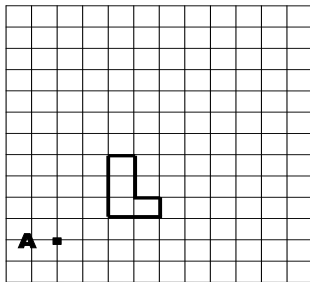
The big trapezium is a scale factor 4 enlargement of the smaller trapezium

Find x , y and z



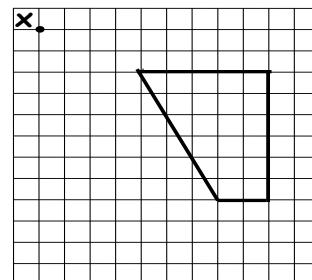
Transformations **2**

Enlarge this L by scale factor 2 about point A



Transformations **3**

Enlarge this shape by scale factor $\frac{1}{2}$ about point X



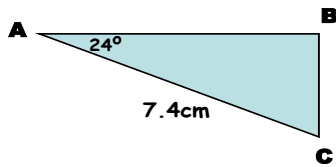
Transformations **4**



Mathsercise-C

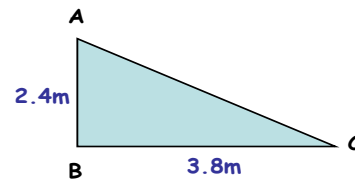
Trigonometry

Calculate the length AB



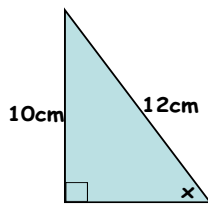
Trigonometry **1**

Find angle BAC



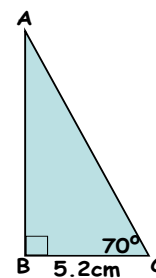
Trigonometry **2**

Find the size of the angle marked x and give your answer to 1 dp



Trigonometry **3**

Find the length of AB and give your answer to 3sf



Trigonometry **4**



Mathsercise-C

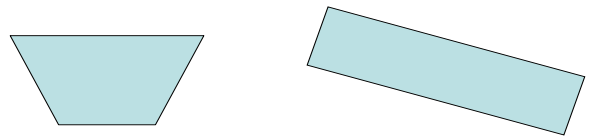
Units
Change



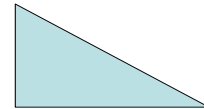
Change 4m^2 to cm^2
(Be Careful!)



Units change **1**



Change 45cm^2 to mm^2



Units change **2**

In these expressions a , b and c represent lengths. The numbers have no dimension

Two of the expressions represent areas. Tick under the expressions that show area.

$(a + b)c$	$3a^2 + 2b^2$	$\frac{ab + bc}{2a}$
$ac + b$	$3ab$	



Units change **3**

In these expressions a , b and c represent lengths. π and 2 have no dimension

Three of the expressions represent areas. Tick under the expressions that show area.

πa^3	$\pi a^2 + b^2$	$\frac{ab + bc}{2a}$
$2ab$	$\pi(3ab)$	



Units change **4**