Cycle 1 mock exam preparation: securing a grade 5, aiming for a grade 6 (higher)

W/C Monday 6 October

Revision timetable:

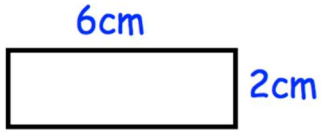
	Monday 6 October	Tuesday 7 October	Wesdnesday 8 October	Thursday 9 October	Friday 10 October	Saturday 11 October	Sunday 12 October
Securing a grade 5, aiming for a grade 6: higher	• Perimeter (inc compound shapes)	• Area of quadrilaterals and triangles	• Mixed area and perimeter (inc worded problems)	• Circumference of a circle	• Area of a circle	• Mixed area and circumference of circles	• Mixed shape problems

Notes

- 20 marks = 20 minutes (time yourself!)
- Show all of your working out
- Use the link to CorbettMaths to look at videos to support

Perimeter – the distance around a shape

1. Shown below is a rectangle.

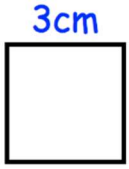


Not drawn accurately

Work out the perimeter of the rectangle.
Include suitable units.

(2 marks)

2. Shown below is a square.

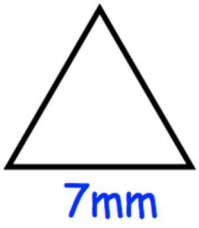


Not drawn accurately

Work out the perimeter of the square.
Include suitable units.

(2 marks)

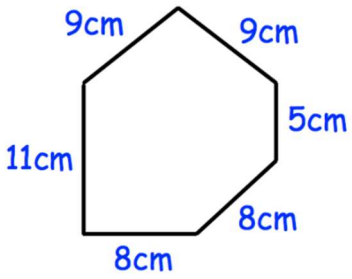
3. Shown below is an equilateral triangle.



Work out the perimeter of the triangle.
Include suitable units.

(2 marks)

4.



Not drawn to scale

a) Name the shape above

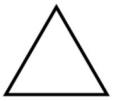
(1 mark)

b) Find the perimeter of the shape. State your units.

(2 marks)

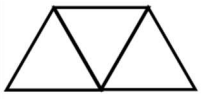
5. Shown below is an equilateral triangle with side length 6cm.

a) Find the perimeter of the equilateral triangle



(1 mark)

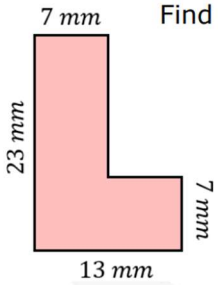
Three equilateral triangles, each with side length 6cm, are put together to make one larger shape.



b) Find the perimeter of the shape

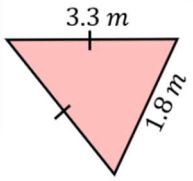
(2 marks)

6. Find the perimeter.



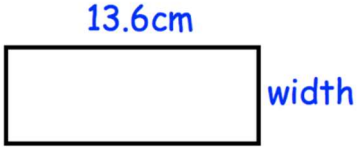
(3 marks)

7. Find the perimeter of the triangle.



(2 marks)

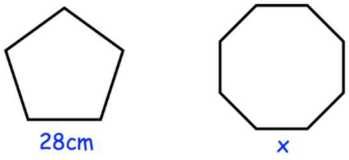
8. The length of a rectangle is 13.6 cm
The perimeter of the rectangle is 37.8cm



Calculate the width of the rectangle.

(3 marks)

9. Shown below is a regular pentagon and a regular octagon.

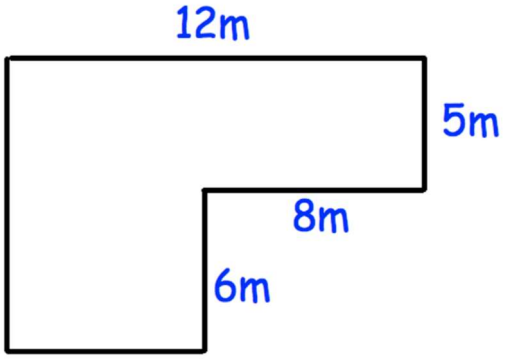


The perimeter of the pentagon is equal to the perimeter of the octagon.

Find x.

(2 marks)

10. Mr Jones is a chicken farmer.

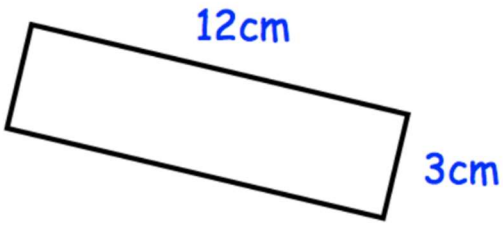


He wants to build a new fence around the chicken enclosure.
Each metre of fencing will cost £7.99

Work out the cost of the new fence.

(4 marks)

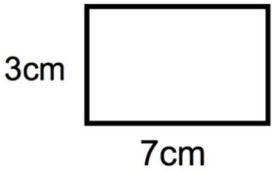
1. The diagram shows a rectangle.



Work out the area.
Include units.

(2 marks)

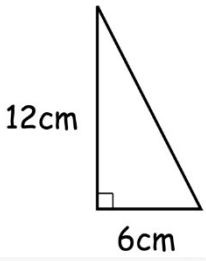
2. Shown below is a rectangle.



Work out the area.

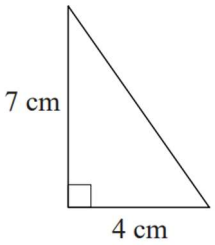
(2 marks)

3. Find the area of the triangle. State your units.



(3 marks)

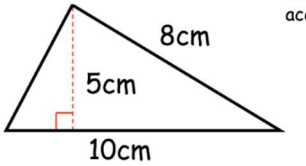
4. Find the area of the triangle. State your units.



(3 marks)

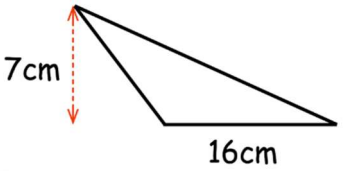
5. Find the area of the triangle. State your units.

Not drawn accurately



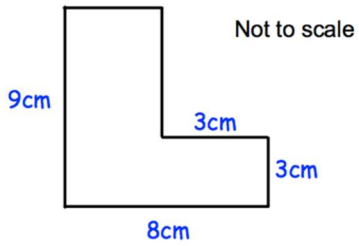
(3 marks)

6. Find the area of the triangle. State your units.



(3 marks)

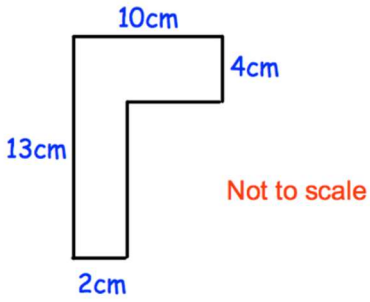
6.



Calculate the area of the shape.

(3 marks)

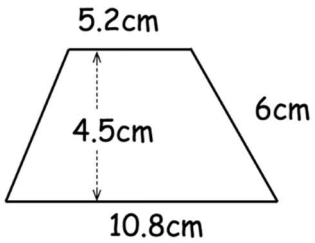
7. Shown is a compound shape.



Calculate the area of the shape.

(3 marks)

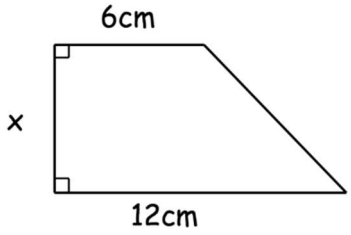
9. Shown below is a trapezium.



Calculate the area of the trapezium.

(2 marks)

10.

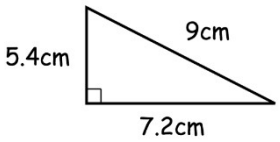


The area of the trapezium is 63cm².

Work out the value of x.

(2 marks)

1. Here is a right-angled triangle.



a) Find the area of the triangle. State your units.

(2 marks)

b) Find the perimeter of the triangle. State your units.

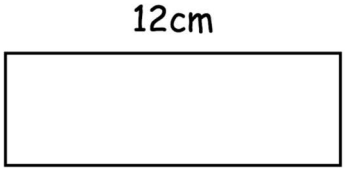
(2 marks)

2. The width of a rectangle is 28cm
The area of the rectangle is 1540cm²

Work out the length of the rectangle.

(2 marks)

3. The diagram shows a rectangle.



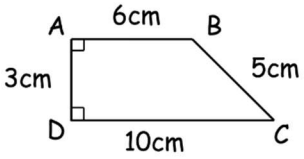
The length of the rectangle is 12cm
The area of the rectangle is 48cm²

Find the width of the rectangle.

(2 marks)

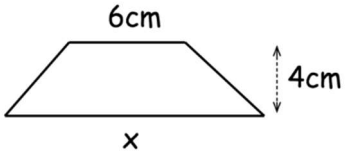
4. Below is a trapezium, ABCD.

Work out the area of the trapezium.



(2 marks)

5.



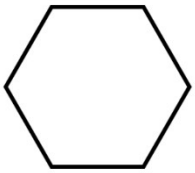
The area of the trapezium is 34cm².

Work out the value of x.

(2 marks)

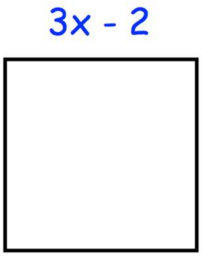
6. Here is a regular hexagon.

Each side is 5cm. What is the perimeter? State your units.



(2 marks)

7. A square is shown below.



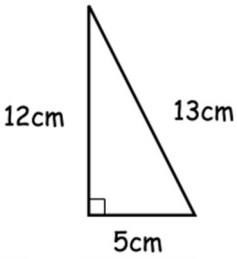
Write an expression for the perimeter of the square.

(2 marks)

8. Shown is a right angled triangle

a) Find the area of the triangle.

State your units.

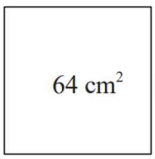


(2 marks)

b) Find the perimeter of the triangle. State your units.

(2 marks)

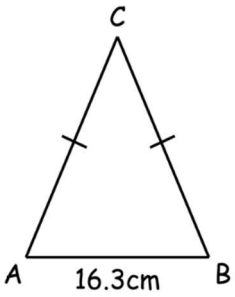
9. A square has an area of 64 cm^2.



Find the perimeter of the square.

(3 marks)

10. ABC is an isosceles triangle.

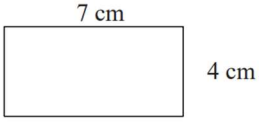


The perimeter of triangle ABC is 70cm

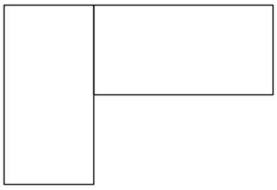
Work out the length of side AC.

(2 marks)

11. Here is a rectangle.



The six-sided shape below is made from two of these rectangles.

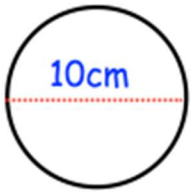


Work out the perimeter of this six-sided shape.

(2 marks)

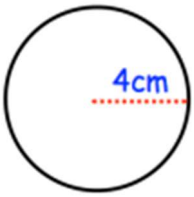
1. Calculate the circumference of the following circles.
Give your answers to 1 decimal place.

a)



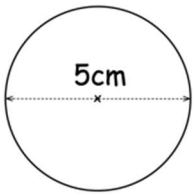
(2 marks)

b)



(2 marks)

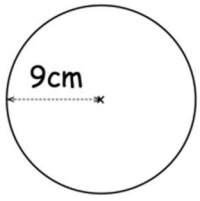
2. Shown below is a circle with diameter 5cm.



Calculate the circumference of the circle.
Give your answer to 1 decimal place.

(2 marks)

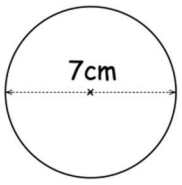
3. Shown below is a circle with radius 9cm.



Work out the circumference of the circle.
Give your answer to 1 decimal place.

(2 marks)

4. Shown below is a circle with diameter 7cm.



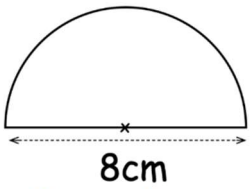
Work out the circumference of the circle.
Give your answer in terms of π

(2 marks)

5. A circle has a radius of 6.5 cm.
Work out the circumference of the circle.
Give your answer correct to 2 decimal places.

(3 marks)

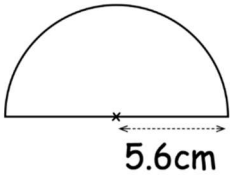
6. A semicircle is shown below.



Work out the perimeter of the semicircle.

(3 marks)

7. A semicircle has radius 5.6cm

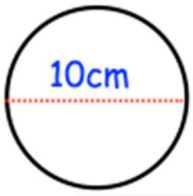


Work out the perimeter of the semicircle.

(3 marks)

1. Calculate the area of the circles. Give your answer to 1 decimal place.

a)



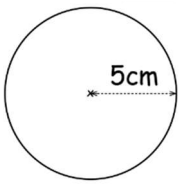
(2 marks)

b)

(2 marks)

2. Shown is a circle with radius 5cm.
Work out the area of the circle.

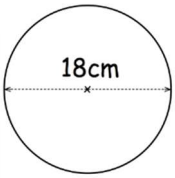
State the units for your answer.
Give your answer to 2 decimal places.



(3 marks)

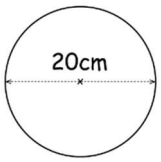
3. A circle has a diameter of 18cm.

State the units for your answer.
Give your answer to 2 decimal places.



(3 marks)

4. A circle has a diameter of 20cm.



Work out the area of the circle.

State the units for your answer.
Give your answer to 2 decimal places.

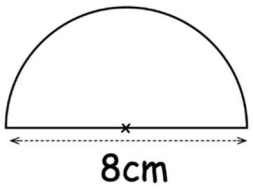
(3 marks)

5. A circle has radius 3cm.

Work out the area of the circle.
Give your answer in terms of π

(2 marks)

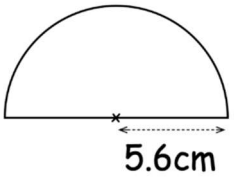
6. A semicircle is shown below.



Work out the area of the semicircle.
Give your answer to 1 decimal place.

(3 marks)

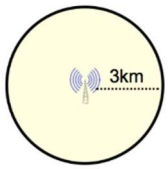
7. A semicircle has radius 5.6cm



Work out the area of the semicircle.
Give your answer to 1 decimal place.

(3 marks)

1. A mobile phone mast has a range of 3km.



Calculate the area of the shaded region.
Give your answer to 2 decimal places.

(2 marks)

2. A circular mirror has a diameter of 1.3m.

Work out the circumference of the mirror.

(2 marks)

3. a) Find the circumference of a bicycle wheel of radius 32cm. Give your answer in metres.

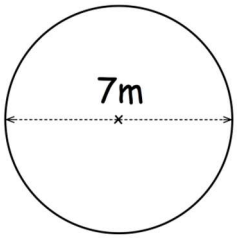
(2 marks)

b) Find the area of a circular table top with diameter 1.05m. State your units.

(2 marks)

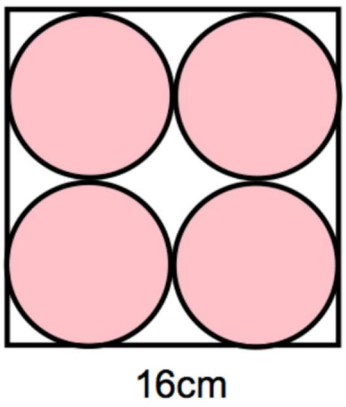
4. A circular flower bed has diameter 7 metres.

Work out the area of the flower bed.
Give your answer correct to 1 decimal place.



(4 marks)

5. A logo is designed that has four pink circles within a white square.



The square has side length 16cm.

Find the area of the logo that is white.

Area and Circumference of a Circle			
(a)	**(b)**	**(c)**	**(d)**
Find the circumference of a circle with a diameter of 15 cm	Find the area of a circle with a radius of 9 mm	Find the area of a circle with a radius of 2.6 m	Find the circumference of a circle with diameter of 60 mm
(e)	**(f)**	**(g)**	**(h)**
Find the circumference of a circle with a radius of 7 cm	Find the area of a circle with a diameter of 3.6 m	Find the circumference of a circle with diameter 23.5 cm	Find the area of a circle with diameter 17 cm
(i)	**(j)**	**(k)**	**(l)**
Find the circumference of a bicycle wheel of radius 32 cm. Give your answer in metres.	Find the area of a circular table top with diameter 1.05 m	A circular track has a radius of 175 m. A cyclist travels around the track 20 times. Find the distance travelled to the nearest km.	A circle fits exactly inside a square. The square has a perimeter of 40 cm. Find the area of the circle.
(m)		**(n)**	
Zak has a circular garden with a diameter of 6 m. He wants to put a fence around the outside of the garden. The fence costs £12.50 per metre. How much will the fence cost?		Pete's Pizza sells a 12 inch diameter pizza for £9.50 and a 16 inch diameter pizza for £14.50. Which is better value for money?	