

# Area of a Circle

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Examples



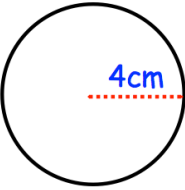
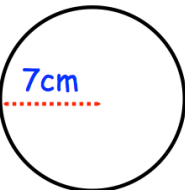
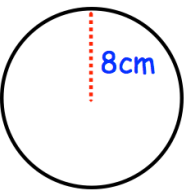
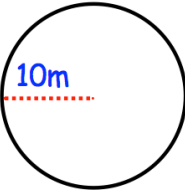
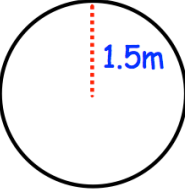
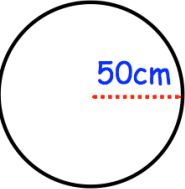
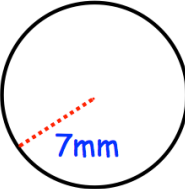
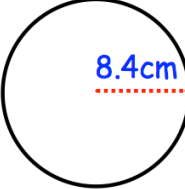
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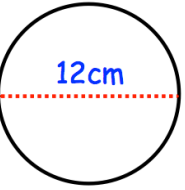
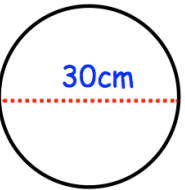
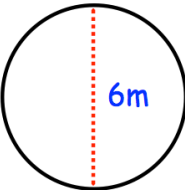
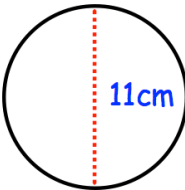
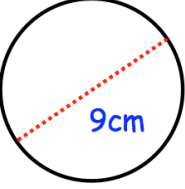
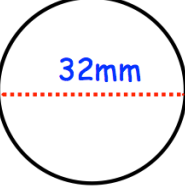
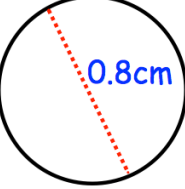
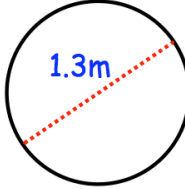
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Workout

Question 1: Calculate the area of the following circles. Give your answers to 1 decimal place.

(a) 	(b) 	(c) 	(d) 
(e) 	(f) 	(g) 	(h) 

Question 2: Calculate the area of the following circles. Give your answers to 1 decimal place.

(a) 	(b) 	(c) 	(d) 
(e) 	(f) 	(g) 	(h) 

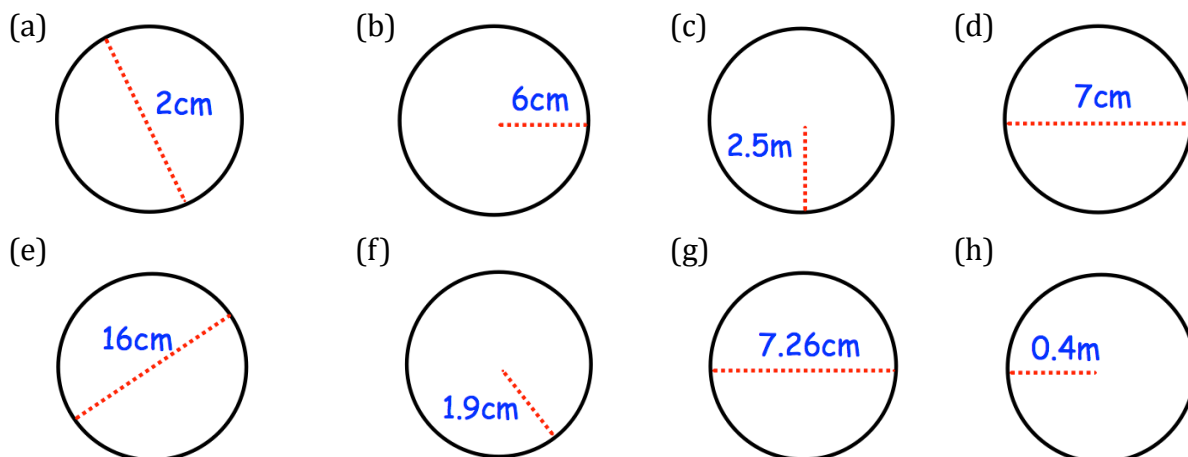
Question 3: Work out the area of the following circles. Give your answers to 1 decimal place.

- |                                    |                                |
|------------------------------------|--------------------------------|
| (a) A circle with radius 9cm       | (b) A circle with radius 12m   |
| (c) A circle with diameter 40cm    | (d) A circle with diameter 1km |
| (e) A circle with diameter 5 yards | (f) A circle with radius 10.5m |

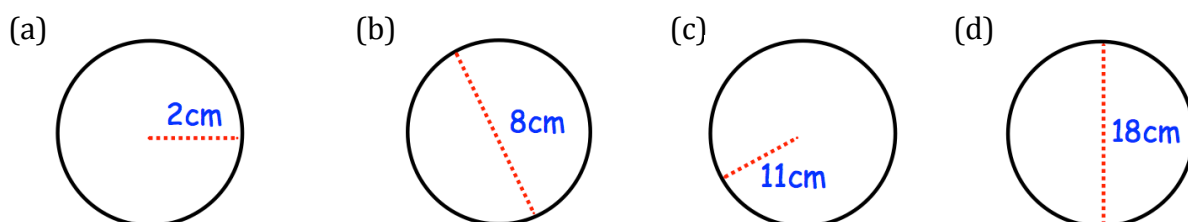
## Area of a Circle

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Question 4: Calculate the area of the following circles. Give your answers to 1 decimal place.



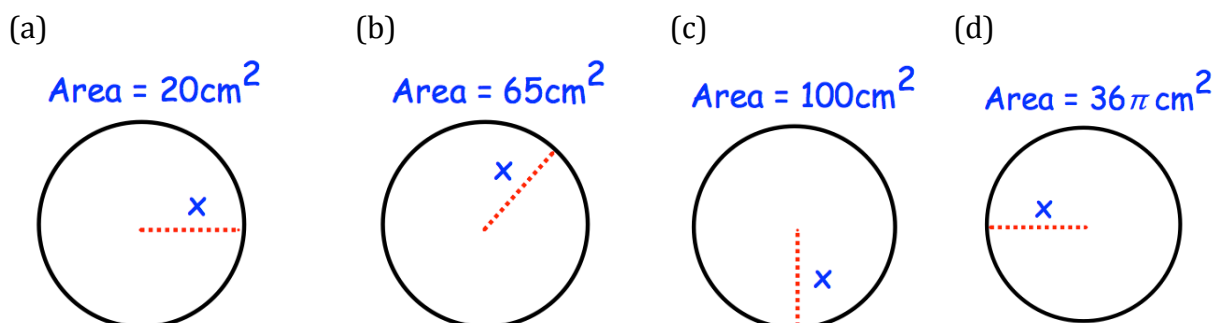
Question 5: Calculate the area of the following circles. Leave your answer in terms of  $\pi$



Question 6: Work out the area of the following circles. Leave your answer in terms of  $\pi$

- (a) A circle with radius 7cm
- (b) A circle with radius 1cm
- (c) A circle with diameter 10cm
- (d) A circle with radius 3cm
- (e) A circle with diameter 4cm

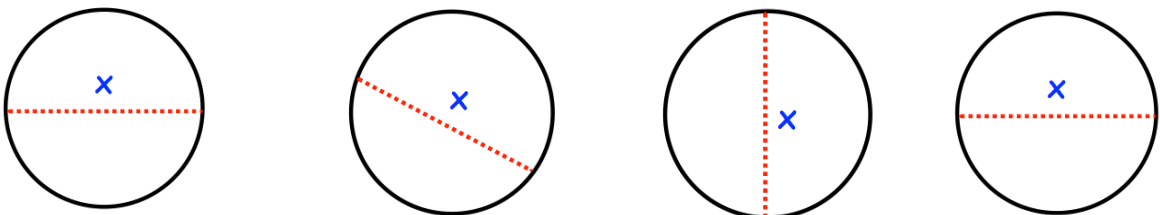
Question 7: Find the size of the radius for each of the following circles.  
Give your answer to 2 decimal places.



## Area of a Circle

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Question 8: Find the size of the diameter for each of the following circles.  
Give your answer to 2 decimal places.

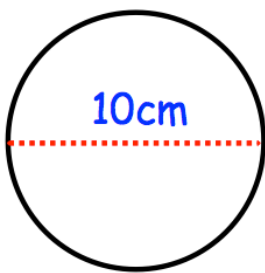
- (a)  $\text{Area} = 400\text{cm}^2$       (b)  $\text{Area} = 50\text{cm}^2$       (c)  $\text{Area} = 10\text{cm}^2$       (d)  $\text{Area} = 16\pi\text{cm}^2$
- 

### Apply

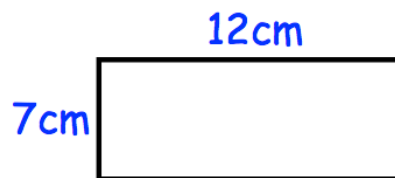
Question 1: A circular table top has a diameter of 90cm. Work out the area of the table top.

Question 2: A circular badge has radius 3cm. Calculate the area of the badge.

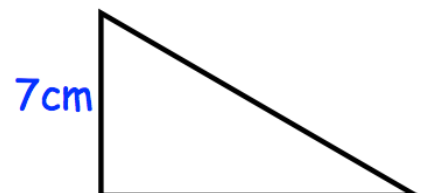
Question 3: Shown below is a circle, a rectangle and a right angled triangle.  
Which shape has the greatest area?



Shape A

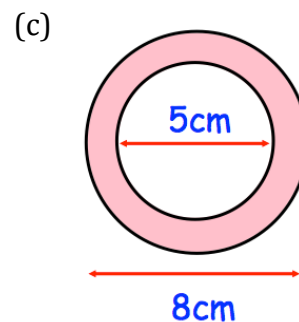
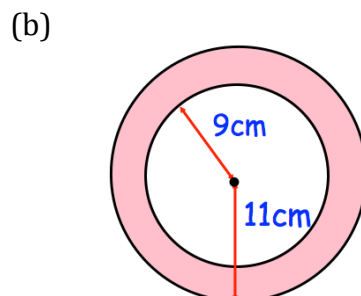
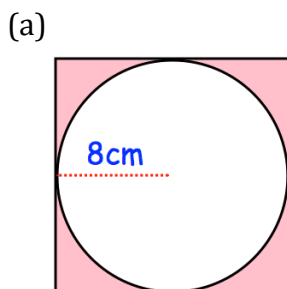


Shape B



Shape C

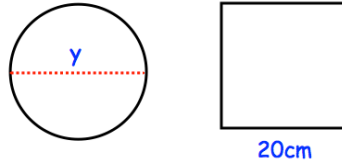
Question 4: Calculate the shaded area for each shape below.



## Area of a Circle

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Question 5: The circle and square have the same area. Find  $y$ , the diameter of the circle.



Question 6: The circumference of a circle is 60cm.  
Work out the area of the circle.

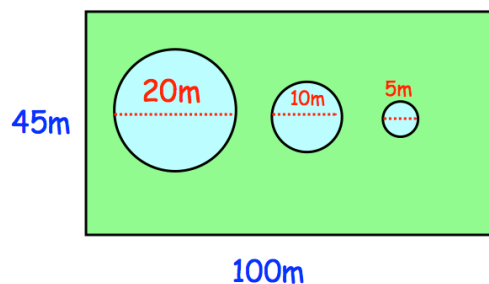
Question 7: The circumference of a circle is 1m.  
Work out the area of the circle.

Question 8: The area of a circle is  $80\text{cm}^2$ .  
Work out the circumference of the circle.

Question 9: The area of a circle is  $2\text{m}^2$ .  
Work out the circumference of the circle.

Question 10: A rectangular lawn is 100m long and 45m wide.  
There are 3 circular ponds, with radii 20m, 10m and 5m respectively.  
Mrs Jones wants to cover the lawn with grass seed.  
Each packet of grass seed covers  $50\text{m}^2$  and costs £1.49

How much will it cost Mrs Jones to cover the lawn with grass seed?



Question 11: A circular plaque of diameter 6cm is cut from a square piece of metal with side length 6cm.

What percentage of the metal is wasted?

Answers



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