



Circles

Circle Formulas

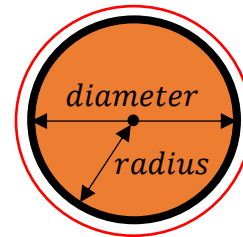
Area of a Circle

$$A = \pi r^2$$

where $\pi = 3.14$, $r = \text{radius}$

EXAMPLE: If $r = 2$, $A = 3.14 \times 2^2 = 12.56\text{m}^2$
There are 12.56 (1m by 1m) squares inside.

circumference



The **diameter** of a circle is essentially the height or length of the circle, a line that passes from one edge to another through the centre point of the circle.

The **radius** of a circle is half of the diameter. It is the distance from the centre point to perimeter.

$$d = 2r$$

$d = \text{diameter}$

$r = \text{radius}$

The **circumference** of a circle is essentially the perimeter of a circle. It is the distance around the entire shape.

The **number π** is a mathematical constant. It is the circumference divided by the diameter of the circle and equals the same for all circles ($\pi = 3.1415926 \dots = 3.14$)

$$C = 2\pi r$$

$$\pi \approx 3.14$$



Instructions: Answer the questions below, rounding to two decimals.

1	$r = 4.5\text{cm}$ Find the area.	
2	$r = 9.8\text{mm}$ Find the area.	
3	$r = 24.5\text{m}$ Find the circumference.	
4	$r = 13.81\text{cm}$ Find the circumference.	
5	$C = 35.2\text{km}$ Find the radius.	
6	$C = 64.41\text{cm}$ Find the radius.	



7	$A = 38.1\text{km}^2$ Find the radius.	
8	$A = 73.03\text{m}^2$ Find the radius.	
9	$d = 6.5\text{km}$ Find the area.	
10	$d = 13.44\text{mm}$ Find the circumference.	
11	$C = 25.95\text{m}$ Find the area.	



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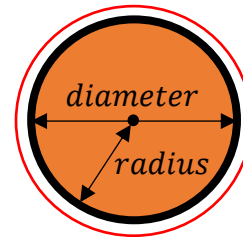
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Instructions: Answer the questions below, rounding to two decimals.

1	$r = 6.29\text{m}$ Find the area.	
2	$r = 1.19\text{mm}$ Find the area.	
3	$r = 53.2\text{km}$ Find the circumference.	
4	$r = 44.5\text{cm}$ Find the circumference.	
5	$C = 13.66\text{m}$ Find the radius.	
6	$C = 31.28\text{km}$ Find the radius.	



7	$A = 55.15\text{m}^2$ Find the radius.	
8	$A = 80.28\text{mm}^2$ Find the radius.	
9	$d = 18.89\text{km}$ Find the area.	
10	$d = 30.02\text{m}$ Find the circumference.	
11	$C = 52.58\text{cm}$ Find the area.	