

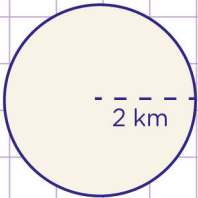
Name: Class:

Circles: calculate area, circumference, radius, and diameter.



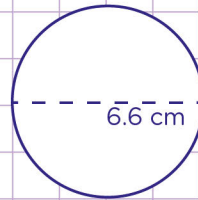
Area of a circle = πr^2

1. The radius of a circle is 2 km.
Find the area of the circle.



$\pi = 3.14$

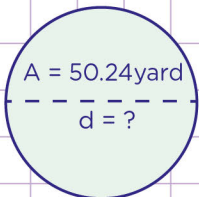
3. The diameter of the circle is 6.6 cm
a) Find the radius of the circle.



$\pi = 3.14$

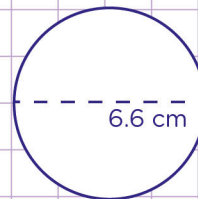
So, the area is 12.54 km^2

2. The area of the circle is 50.24 square yards
What is the diameter of the circle?



$\pi = 3.14$

- b) Find the circumference of the circle.



$\pi = 3.14$



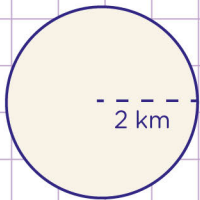
Name: Class:

Circles: calculate area, circumference, radius, and diameter.



Area of a circle = πr^2

1. The radius of a circle is 2 km.
Find the area of the circle.

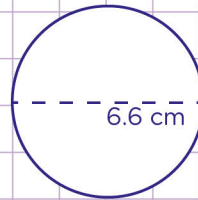


$\pi = 3.14$
 $r = 2 \text{ km}$
 Area of a circle = πr^2

Substitute the numbers and solve
 $\text{Area} = 3.14 \times (2 \text{ km})^2$
 $3.14 \times 4 \text{ km}^2 = 12.56 \text{ km}^2$

So, the area is 12.54 km²

3. The diameter of the circle is 6.6 cm
 a) Find the radius of the circle.

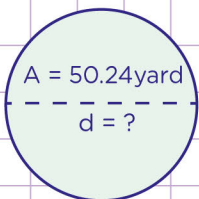


$\pi = 3.14$
 $r = ?$
 diameter = 6.6 cm

find the radius given the diameter
 $d = 2 \times r$
 $6.6 = 2 \times r$
 $r = 6.6/2 = 3.3 \text{ cm}$

So, the radius is 3.3 cm

2. The area of the circle is 50.24 square yards
 What is the diameter of the circle?



$\pi = 3.14$
 radius = ?
 diameter = ?
 Let's first find the radius.

Area = πr^2 make r the subject

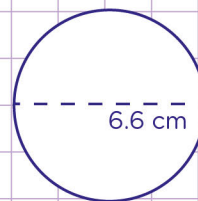
So, $r = \sqrt{\frac{\text{area}}{\pi}} \rightarrow \sqrt{\frac{50.24}{3.14}} \rightarrow \sqrt{16}$

So, $r = 4$

Now, find the diameter (d)
 $d = 2r$
 $d = 2 \times 4$
 $d = 8 \text{ yards}$

So, the diameter is 8 yards

- b) Find the circumference of the circle.



$\pi = 3.14$
 $r = 3.3$
 diameter = 6.6 cm
 Circumference (c) = $2 \pi r$

Now substitute the values in to the formula
 $C = 2 (3.14)(3.3)$
 $C = (6.28)(3.3)$
 $C = 20.72$

So, the circumference is 20.72

