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

1. The radius of a circle is 2 km. Find the area of the circle.
   \[ \pi = 3.14 \]
   \[ \text{So, the area is } 12.54 \text{ km}^2 \]

2. The area of the circle is 50.24 square yards. What is the diameter of the circle?
   \[ A = 50.24 \text{ yard}, \quad d = ? \]

3. The diameter of the circle is 6.6 cm.
   a) Find the radius of the circle.
   \[ d = 6.6 \text{ cm}, \quad \pi = 3.14 \]
   \[ a) \quad r = \frac{d}{2} = \frac{6.6}{2} = 3.3 \text{ cm} \]
   \[ b) \quad \text{Find the circumference of the circle.} \]
   \[ \text{C} = \pi d = 3.14 \times 6.6 = 20.784 \text{ cm} \]
Circles: calculate area, circumference, radius, and diameter.

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 = \( \pi r^2 \)
   Substituting 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 12.56 km\(^2\).

2. The area of the circle is 50.24 square yards.
   What is the diameter of the circle?
   \[ A = 50.24 \text{ yard}^2 \]
   \[ d = ? \]
   \[ \pi = 3.14 \]
   \[ \text{radius} = ? \]
   \[ \text{diameter} = ? \]
   Let's first find the radius.
   Area = \( \pi r^2 \)
   \[ r = \sqrt{\frac{\text{area}}{\pi}} \]
   \[ r = \sqrt{\frac{50.24}{3.14}} \]
   \[ r = 4 \]
   So, \( r = 4 \).
   Now, find the diameter (d)
   \[ d = 2r \]
   \[ d = 2 \times 4 \]
   \[ d = 8 \text{ yards} \]
   So, the diameter is 8 yards.

3. The diameter of the circle is 6.6 cm.
   a) Find the radius of the circle.
   \[ \pi = 3.14 \]
   \[ r = ? \]
   \[ \text{diameter} = 6.6 \text{ cm} \]
   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.
   b) Find the circumference of the circle.
   \[ \pi = 3.14 \]
   \[ r = 3.3 \]
   \[ \text{diameter} = 6.6 \text{ cm} \]
   Circumference \( (c) = 2 \pi r \)
   Now substitute the values into the formula
   \[ C = 2 \times (3.14)(3.3) \]
   \[ C = (6.28)(3.3) \]
   \[ C = 20.72 \]
   So, the circumference is 20.72 cm.