Algebra: Circumference

Find the circumference of a circle with a radius of 14 ft.

**Step 1:** Choose a formula.
Since you know the radius, use the formula that has $r$.

\[ C = 2\pi r \]

**Step 2:** Choose an approximation for $\pi$.
$\frac{22}{7}$ is easiest to use when the radius is divisible by 7.

14 is divisible by 7.

Use $\frac{22}{7}$ for $\pi$.

**Step 3:** Use the formula.
\[ C = 2 \times \frac{22}{7} \times 14 \]
\[ \frac{88}{1} = 88 \]
The circumference is about 88 ft.

Find the circumference of a circle given a diameter of 16.

**Step 1:** Choose a formula.
Since you know the diameter, use the formula that has $d$.

\[ C = \pi d \]

**Step 2:** Choose an approximation for $\pi$.
Since 16 is not divisible by 7, use 3.14.

**Step 3:** Use the formula.
\[ C = 3.14 \times 16 \]
\[ C = 50.24 \]

Find the circumference or missing measure for each circle. Use 3.14 or $\frac{22}{7}$ as approximations for $\pi$.

1. \[ C = 30 \text{ yd} \] 
   \[ d = \boxed{} \]

2. \[ C = 56 \text{ cm} \] 
   \[ r = \boxed{} \]

3. \[ C = 6.35 \text{ km} \] 
   \[ r = \boxed{} \]

4. \[ C = 30 \text{ yd} \]
   \[ d = \boxed{} \]

5. \[ C = 56 \text{ cm} \]
   \[ r = \boxed{} \]

6. \[ C = 6.35 \text{ km} \]
   \[ r = \boxed{} \]