

# Unit 12 Topic 2 – Circumference of a Circle

$$C = 2\pi r$$

#1-3 Answer the following questions. **Show your work.**

- 1.) Mike purchases a round wall clock. The clock's radius is 10 inches. What is the circumference of the clock? Round your answer to the nearest hundredths place.

$$r=10$$

**F**  $C = 2\pi r$

**S**  $C = 2\pi(10)$

**M**  $C = 62.83185307$

**U**  $C = 62.83$

**Circumference** = 62.83 in

- 2.) Lisa bought a cookie cake with a radius of 8 cm. What is the circumference of the cookie cake? Leave your answer in terms of  $\pi$ .

$$r=8$$

**F**  $C = 2\pi r$

**S**  $C = 2\pi(8)$

**M**  $C = 16\pi$

**U**

Do not use  $\pi$  button!

**Circumference** =  $16\pi$  cm

- 3.) Megan bought round plates for her mom for Christmas. The diameter of the plates is 11 inches. What is the circumference of the clock? Use 3.14 for  $\pi$ .

$$d=11$$

**F**  $C = \pi d$

**S**  $C = 3.14(11)$

**M**  $C = 34.54$

**U**

OR

$$d=11 \rightarrow r=5.5$$

$$C = 2\pi r$$

$$C = 2(3.14)(5.5)$$

**Circumference** = 34.54 in

**TURN OVER** →

## Review It!

- 4.) Find the **diameter** of a circle whose radius is 9 feet. **Show your work.**

$$d = 2r$$
$$d = 2(9)$$

$$\boxed{18 \text{ ft}}$$

- 5.) Find the **radius** of a circle whose diameter is 50 yards. **Show your work.**

$$r = \frac{1}{2}d$$
$$r = \frac{1}{2}(50)$$

$$\boxed{25 \text{ yd}}$$

- 6.) Solve and check the following algebraic equation.

$$-8x + 3 = -29$$

$$\begin{array}{r} -3 \quad -3 \\ \hline -8x = -32 \\ \hline -8 \quad -8 \\ \hline x = 4 \end{array}$$

**Check**

$$\begin{aligned} -8x + 3 &= -29 \\ -8(4) + 3 &= -29 \\ -32 + 3 &= -29 \\ -29 &= -29 \checkmark \end{aligned}$$

- 7.) Which expression is equivalent to  $n + n - 0.18$ ?

A  $1.18n$

B  $1.82n$

C  $n - 0.18$

$\boxed{\text{D } 2n - 0.18}$

$$\boxed{1n + 1n - 0.18}$$

$$2n - 0.18$$