

Unit 12 Topic 2 – Circumference of a Circle

AIM: How do you find the circumference of a circle given the radius or diameter?

Circumference:

- **Circumference** is the distance around a circle; it is like perimeter.
- The formula for circumference of a circle is:

$$C = 2\pi r$$

circumference →
radius ←

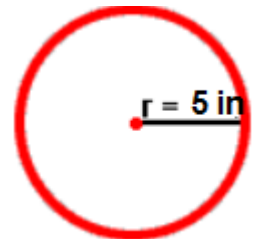
The question can say...

Round your answer	
Leave in terms of π	
Use 3.14 for π	

Example #1: “Using the Pi Button”

Find the circumference of the circle to the right. Round your answer to the nearest *tenths* place.

What do you know?	What do you need to find?
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- Step 1:** Write out the formula **F**
- Step 2:** Substitute **S**
- Step 3:** Do the math. **M**
- Step 4:** Round and label your answer **U**



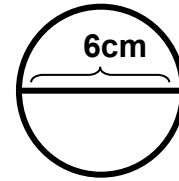
On your calculator.

2	x	π	x	5	=
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Try It!

Find the circumference of the circle to the right. Round your answer to the nearest hundredths place.

What do you know?	What do you need to find?
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Step 1: Write out the formula **F**

Step 2: Substitute **S**

Step 3: Do the math. **M**

Step 4: Round and label your answer **U**

Example #2: “Leaving in Terms of Pi”

Find the circumference of a circle whose radius is 10 yards. Leave your answer in terms of π .

F

S

M

U

Try It!

Find the circumference of a circle whose diameter is 8 inches. Leave your answer in terms of π . **Show your work.**

Example #3: “Using 3.14 for Pi”

A round table has a diameter of 35 inches. Find the **circumference** of the table. Use 3.14 for π . **Show your work.**

F

S

M

U

Try It!

A wheel has a diameter of 28 inches. What is the approximate distance around the outside of the wheel? Use 3.14 for π . **Show your work.**

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$$C = 2\pi r$$

#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.

F

S

M

U

Circumference = _____

- 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 π .

F

S

M

U

Circumference = _____

- 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 π .

F

S

M

U

Circumference = _____

TURN OVER →

Review It!

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

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

6.) Solve and check the following algebraic equation.

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

Check

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

A $1.18n$

B $1.82n$

C $n - 0.18$

D $2n - 0.18$