Math Virtual Learning

Grade 7
Circles

May 8, 2020

Grade 7/Circles
Lesson: May 8, 2020

Objective/Learning Target:
Find the area and circumference of a circle in context.

Let's Get Started:
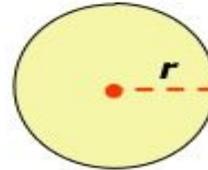Watch Video: Circumference of a Circle

Quick review from yesterday…

Area of Circles

AREA OF A CIRCLE

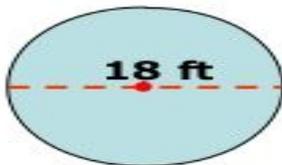|		
The area A of a circle is the product of π and the square of the circle's radius r.	$A = \pi r^2$	

Review from yesterday:

See if you can find the answer without referring back to yesterday.
Use 3.14 for Pi (π).

Area of Circles

Find the area of the circle to the nearest tenth. Use 3.14 for π.

18 ft

$A = \pi r^2$ — *Use the formula.*
$A \approx$ — *Substitute 9 for r.*
$A \approx$ answer — *Evaluate the power.*
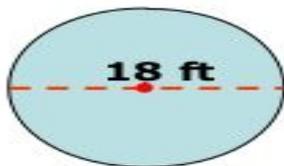$A \approx$ — *Multiply.*

The area of the circle is about answer

Answer:
Did you get it? Check below!
Use 3.14 for Pi (π).

Area of Circles

Find the area of the circle to the nearest tenth. Use 3.14 for π.

18 ft

$A = \pi r^2$ — *Use the formula.*

$A \approx 3.14 \cdot 9^2$ — *Substitute 9 for r.*

$A \approx 3.14 \cdot 81$ — *Evaluate the power.*
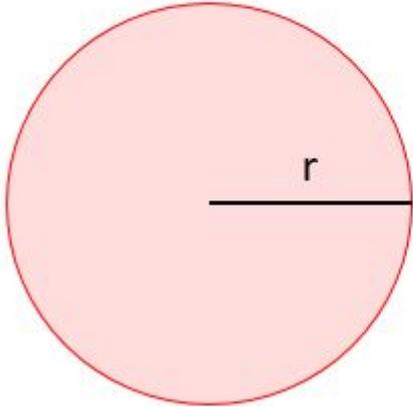
$A \approx 254.34$ — *Multiply.*

The area of the circle is about 254.3 ft².

Quick Video Review:
Below are the most important concepts
from the video watched on slide 2.
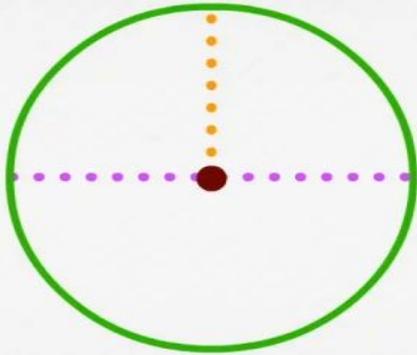

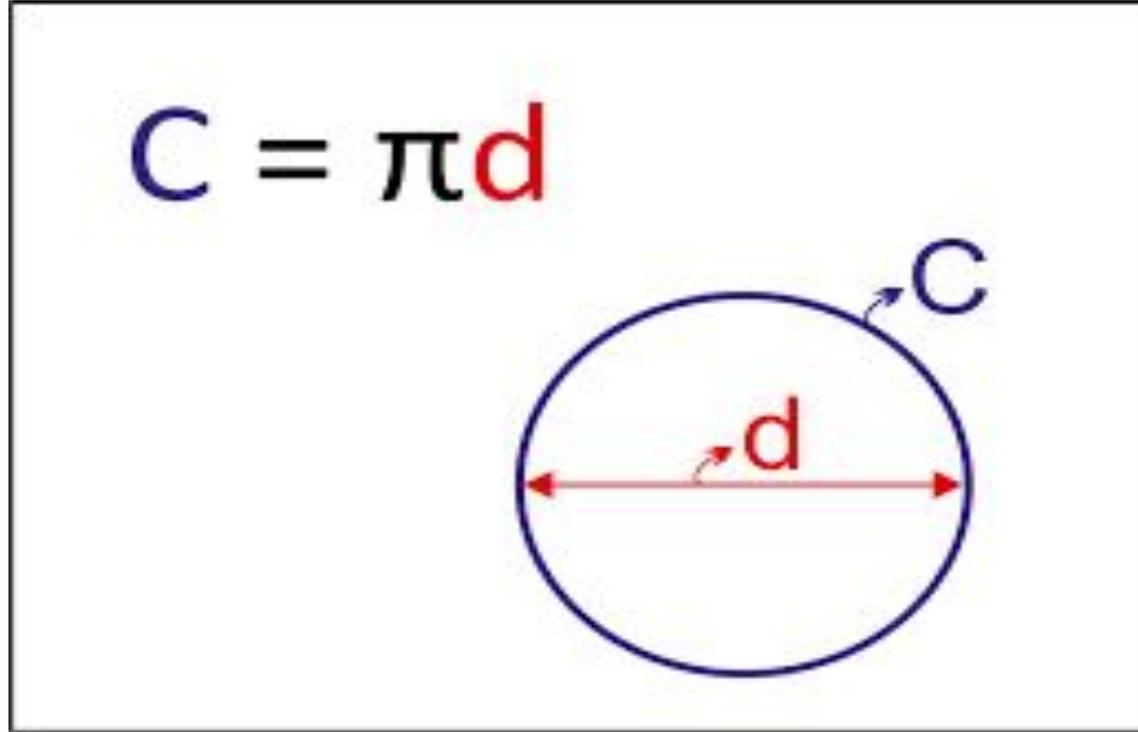**Circumference of Circle**

Circumference
of circle

$$C = 2\pi r$$

$$\pi = 3.14$$

Vocabulary Review

① Circumference
The distance around the circle

② Diameter
The distance from the circle through the circle's center to the circle on the opposite side.
Diameter is 2 x radius.

③ Radius
The distance from the center of the circle to the circle.
Radius is ½ x diameter.

Here is another way to find the circumference.
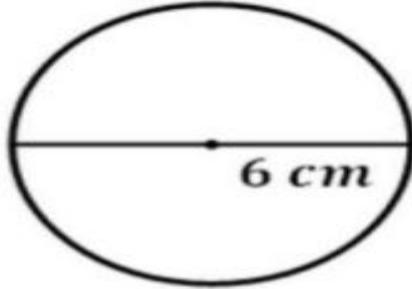
$$C = \pi d$$

Practice:
Go to this website:
Quizziz Circumference of a Circle

1. Look at the question carefully.
2. Use 3.14 as your value for Pi.
3. Answer the first 10 questions.
4. Log in to google to see your answers. You do not have to sign up for an account.
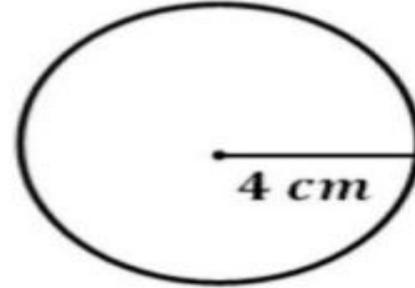
Practice:

Answer the questions on a piece of paper.
Use 3.14 for Pi (π) to solve for the area and circumference of the circles.

6 cm

4 cm

$A = \pi r^2$ $C = \pi d$
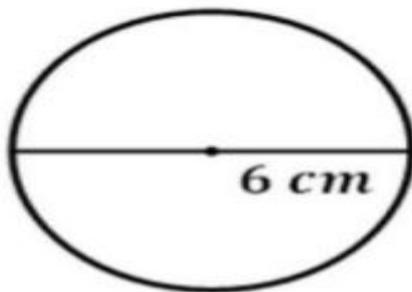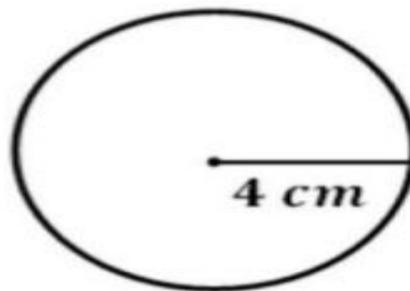
$C = 2\pi r$ $A = \pi r^2$

Answer Key:

Once you have completed the problems, check your answers here.

$A = \pi r^2$
$A = (3.14)\, 3^2$
$A = (3.14)9$
$A = 28.26\ cm^2$

6 cm

$A = \pi r^2$
$A = (3.14)\, 4^2$
$A = (3.14)16$
$A = 50.24\ cm^2$

4 cm

$C = \pi d$
C = 3.14(6)
C = 18.84 cm

$C = 2\pi r$
C = 2(3.14)4
C = 25.12 cm

Practice:

Answer the question on a piece of paper.
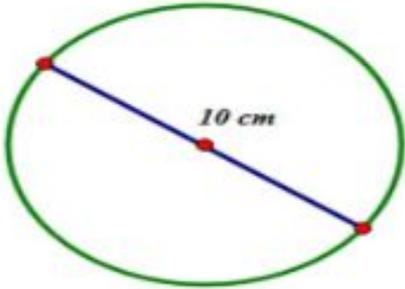
Use 3.14 for Pi (π) to solve for the area and circumference of the circles..

10 cm

$C = \pi d$ $A = \pi r^2$

A bike wheel has a diameter of 12 in. What is the circumference and area of the wheel?
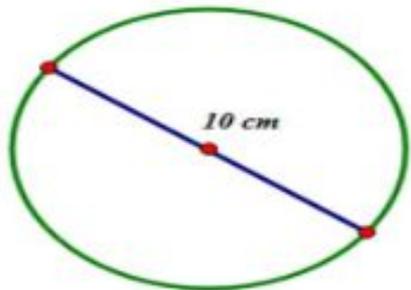
A minute-hand on a clock is 16 in long. Find the distance traveled by the tip of the minute-hand in one hour. How much area does the face of the clock cover?

Answer Key:
Once you have completed the problems, check your answers here.

10 cm

$C = \pi d$

C = 3.14(10)
C = 31.4 cm

$A = \pi r^2$
A = (3.14) 5^2
A = (3.14)25
A = 78.5 cm^2

A bike wheel has a diameter of 12 in. What is the circumference and area of the wheel?

$C = \pi d$

C = 3.14(12)
C = 37.68 in

$A = \pi r^2$
A = (3.14) 6^2
A = (3.14)36
A = 113.04 in^2

A minute-hand on a clock is 16 cm long. Find the distance traveled by the tip of the minute-hand in one hour. How much area does the face of the clock cover?

$C = \pi d$
C = 3.14(16)
C = 50.24 cm

$A = \pi r^2$
A = (3.14) 8^2
A = (3.14)64
A = 200.96 cm^2

Additional Practice:

Click on the links below to get additional practice and to check your understanding!

[Quizizz](#) - Challenge

[IXL](#) - Area and Circumference Practice

[Khan Academy](#) - Practice

[Open Middle](#) - Challenge