



Math Virtual Learning

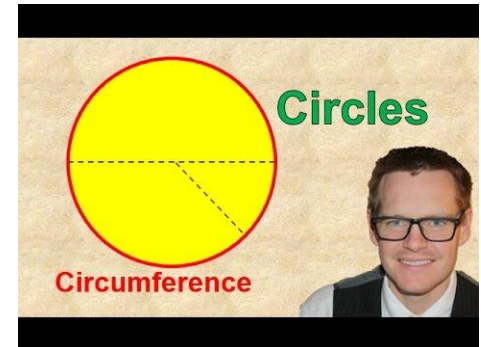
Grade 7/Circumference

May 5, 2020

Grade 7/ Circumference Lesson: May 5, 2020

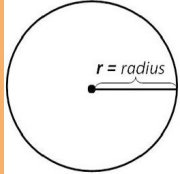
Objective/Learning Target:
Find circumference of a circle.

Let's Get Started:
Click on the Video Link:

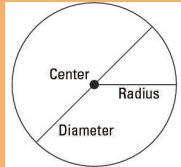
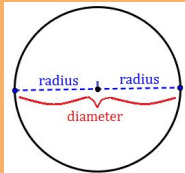
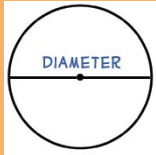


Warm-Up

Radius - the distance $\frac{1}{2}$ way across a circle to its center point.

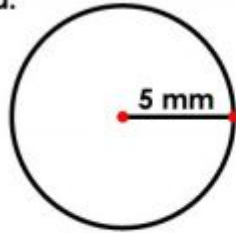


Diameter - the distance all the way across a circle *through* the center point. The diameter is twice the distance of the radius.



What is the radius and diameter of each circle?

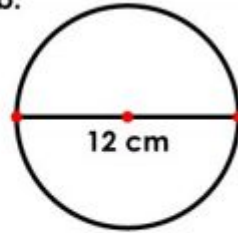
a.



radius = _____

diameter = _____

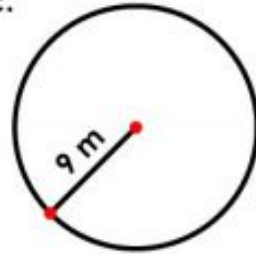
b.



radius = _____

diameter = _____

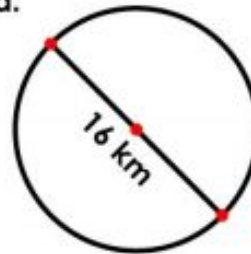
c.



radius = _____

diameter = _____

d.

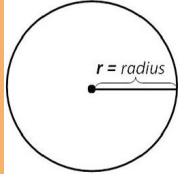


radius = _____

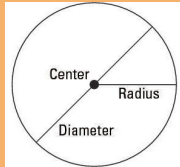
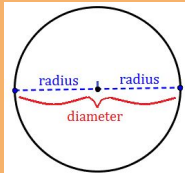
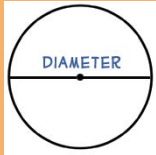
diameter = _____

Warm-Up - Answer Key

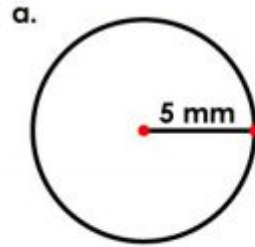
Radius - the distance $\frac{1}{2}$ way across a circle to its center point.



Diameter - the distance all the way across a circle *through* the center point. The diameter is twice the distance of the radius.

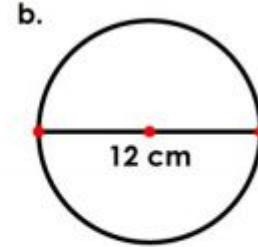


What is the radius and diameter of each circle?



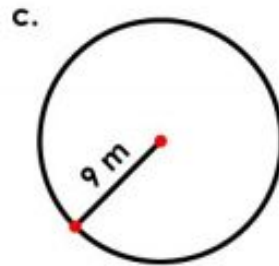
radius = 5 mm

diameter = 10 mm



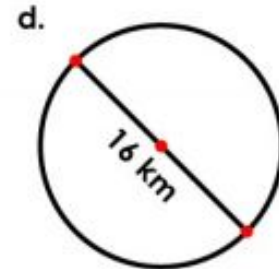
radius = 6 cm

diameter = 12 cm



radius = 9 m

diameter = 18 m



radius = 8 km

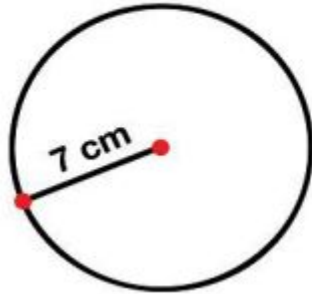
diameter = 16 km

Guided Practice

You may want to use paper, pencil and definitely a calculator.



Find the radius, diameter, and circumference of each circle. Use 3.14 for pi.



EXAMPLE

The radius of this circle is **7 cm**.

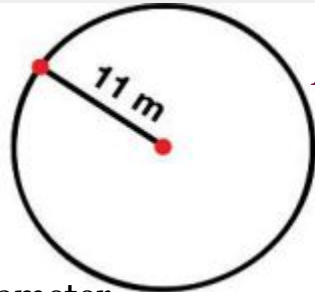
The diameter of this circle is **14 cm** $7 \times 2 = 14$.

The circumference of this circle is **43.96 cm**.

$$C = \pi d$$

$$C = 3.14 \cdot 14$$

$$C = 43.96 \text{ cm}$$

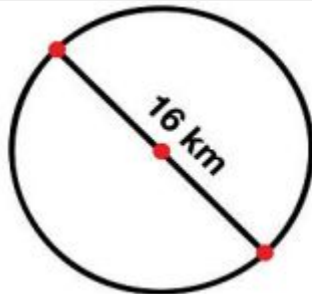


A.)

The radius of this circle is _____.

The diameter of this circle is _____.

The circumference of this circle is _____.



B.)

The radius of this circle is _____.

The diameter of this circle is _____.

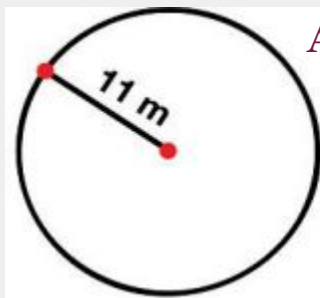
The circumference of this circle is _____.

Circumference = pi times diameter

$$C = \pi d$$

$$C = 3.14d$$

Guided Practice Answers



A.)

The radius of this circle is 11 m.

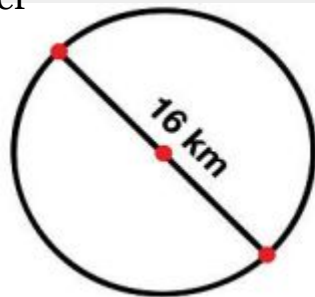
The diameter of this circle is 22 m $11 \times 2 = 22$.

The circumference of this circle is 69.08 m.

$$C = \pi d$$

$$C = 3.14 \cdot 22$$

$$C = 69.08 \text{ m}$$



B.)

The radius of this circle is 8 km $16 \div 2 = 8$.

The diameter of this circle is 16 km.

The circumference of this circle is 50.24 km.

$$C = \pi d$$

$$C = 3.14 \cdot 16$$

$$C = 50.24 \text{ km}$$

Circumference = pi times diameter

$$C = \pi d$$

$$C = 3.14d$$

Additional Practice

[Find the Circumference - Quizizz](#)

- ❑ Click on the link above.
- ❑ Choose either “Play Quiz” or “Flashcards”.

You will want to have scratch paper and a calculator to help you.

A screenshot of the Quizizz interface for a quiz titled "Circumference" with 10 questions, created by Mr. Shepherd. The interface is dark-themed and features three main action buttons: a green "Play quiz" button, a purple "Flashcards" button, and a purple "Challenge friends" button. Below these is a "Game settings" section with four toggle switches: "Timer" (on), "Read aloud" (off), "Memes" (on), and "Power-ups" (on).

Circumference
10 questions
By : Mr. Shepherd
Share

▶ Play quiz

📄 Flashcards

👥 Challenge friends

Game settings

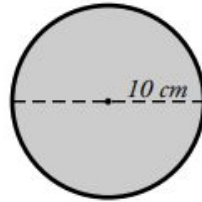
🕒 Timer 🗨️ Memes

🗨️ Read aloud 🚀 Power-ups

Practice:

Answer the questions on a piece of paper.

To find the circumference of a circle, use the formula **pi x diameter = circumference**. This formula is often written as $C = \pi \times d$.



The circle pictured here has a diameter of 10 cm.

$$d = 10 \text{ cm}$$

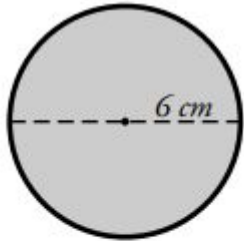
$$\pi \approx 3.14$$

$$10 \text{ cm} \times 3.14 = 31.4 \text{ cm}$$



Find the circumference of each circle. Use 3.14 for pi.

a.



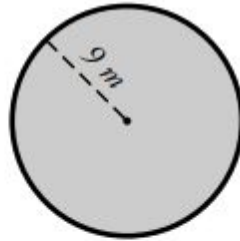
$$r = \underline{\hspace{2cm}} \quad d = \underline{\hspace{2cm}}$$

$$C = \pi \bullet \underline{\hspace{2cm}}$$

$$C = \underline{\hspace{2cm}} \bullet \underline{\hspace{2cm}}$$

$$C = \underline{\hspace{2cm}}$$

b.



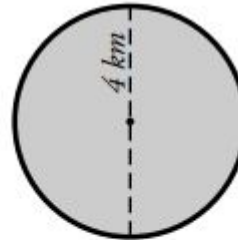
$$r = \underline{\hspace{2cm}} \quad d = \underline{\hspace{2cm}}$$

$$C = \pi \bullet \underline{\hspace{2cm}}$$

$$C = \underline{\hspace{2cm}} \bullet \underline{\hspace{2cm}}$$

$$C = \underline{\hspace{2cm}}$$

c.



$$r = \underline{\hspace{2cm}} \quad d = \underline{\hspace{2cm}}$$

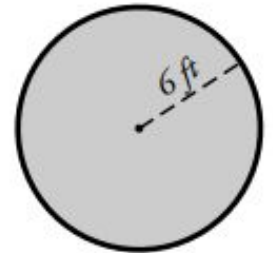
$$C =$$

$$C =$$

$$C =$$

$$C = \underline{\hspace{2cm}}$$

d.



$$r = \underline{\hspace{2cm}} \quad d = \underline{\hspace{2cm}}$$

$$C =$$

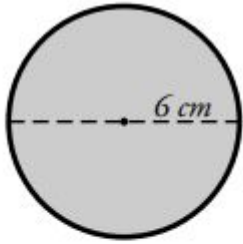
$$C =$$

$$C =$$

$$C = \underline{\hspace{2cm}}$$

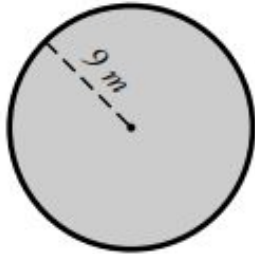
Practice Answers

a.



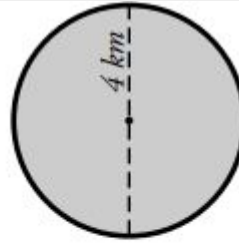
$$\begin{aligned}r &= 3 & d &= 6 \\C &= \pi \cdot 6 \\C &= 3.14 \cdot 6 \\C &= 18.84 \text{ cm}\end{aligned}$$

b.



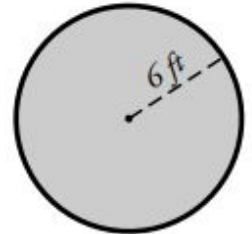
$$\begin{aligned}r &= 9 & d &= 18 \\C &= \pi \cdot 18 \\C &= 3.14 \cdot 18 \\C &= 56.52 \text{ m}\end{aligned}$$

c.



$$\begin{aligned}r &= 2 & d &= 4 \\C &= \pi \cdot 4 \\C &= 3.14 \cdot 4 \\C &= 12.56 \text{ km}\end{aligned}$$

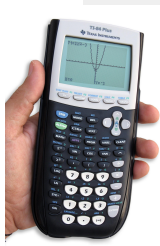
d.



$$\begin{aligned}r &= 6 & d &= 12 \\C &= \pi \cdot 12 \\C &= 3.14 \cdot 12 \\C &= 37.68 \text{ ft}\end{aligned}$$

Additional Links

- **Click on the link:**
 - [Radius and Diameter of a Circle Practice](#)
 - Practice finding radius and diameter of a circle. You may want a calculator!
- **Click on the link:**
 - [Paper Bird](#)
 - First answer the question given correctly.
 - Then you will help the paper bird fly through the obstacles. If you hit an obstacle, the ground, or the top your paper bird will stop and you will have to answer another question.
 - **Hint: Make sure to look at the units of measure.**



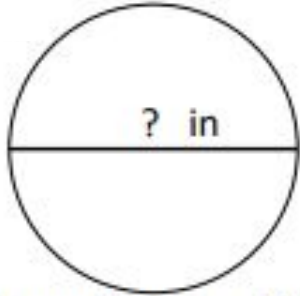
A screenshot of a web browser displaying a math game interface. The page title is "Math Games" and the current problem is "Circles: Calculate Area, Radius, Circumference". The question asks: "The radius of a circle is 14 m. What is the circle's diameter?". A diagram shows a purple circle with a horizontal diameter line. Below the diagram are four blue buttons with white text: "28 m", "31 m", "37 m", and "34 m". The top navigation bar includes links for "Grade", "Skills", "Games", "Standards", "Worksheets", and "Subscribe". A "Scratch Pad" button is also visible.

A screenshot of the "Paper Bird" game interface. The title "Paper Bird" is displayed in large, stylized white letters against a blue background. Below the title are two white clouds. A green "START" button is positioned between the clouds. At the bottom, there are two paper birds: a red one on the left and a yellow one on the right. A red "more games" button is located between the birds, and a green "Track My Progress" button is at the bottom right.

CHALLENGE

Learning Target: I can use circumference of a circle to find the diameter or radius.

EXAMPLE

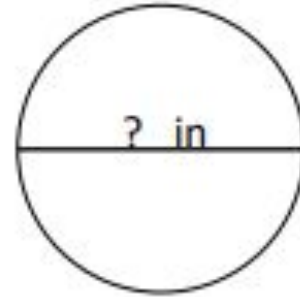


Circumference = 21.98 in

$$C = \pi d$$

$$\begin{array}{r} 21.98 \text{ in} = 3.14 \cdot d \\ \div 3.14 \quad \quad \div 3.14 \end{array}$$

$$7 \text{ in} = d$$

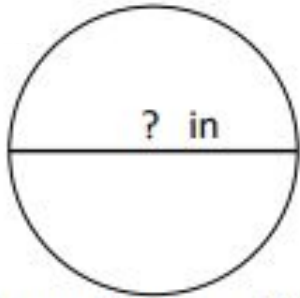


Circumference = 15.7 in

$$d = \underline{\hspace{2cm}}$$

CHALLENGE - answers

EXAMPLE

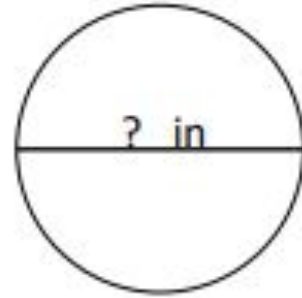


Circumference = 21.98 in

$$C = \pi d$$

$$\begin{array}{r} 21.98 \text{ in} = 3.14 \cdot d \\ \div 3.14 \quad \quad \div 3.14 \end{array}$$

$$7 \text{ in} = d$$



Circumference = 15.7 in

$$C = 15.7 \quad d = ?$$

$$15.7 = \pi \cdot d$$

$$\frac{15.7}{3.14} = \frac{3.14 \cdot d}{3.14}$$

$$5 \text{ in} = d$$