



Math Virtual Learning

Pre-Algebra
Parts of a Circle

May 04, 2020



Grade 7/Parts of a Circle
Lesson: May 4, 2020

Objective/Learning Target:
Students will understand parts of a circle and find circumference of a circle.

Instructional Video



Labeling parts
of a circle



Notes to Jot Down

[Khan Academy : What is a Circle?](#)



Make sure you have this in your notes:

Radius : A line from the center of a circle to the outside edge.

Diameter : A straight line from one side of a circle, through the center, to the opposite side of the circle.

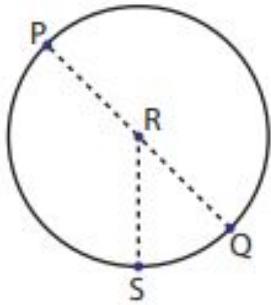
Circumference : The distance around a circle

Guided Practice

Answers on the next page

Identify the parts of each circle.

1)

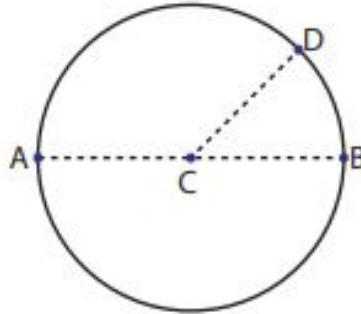


Center = _____

Radius = _____

Diameter = _____

2)

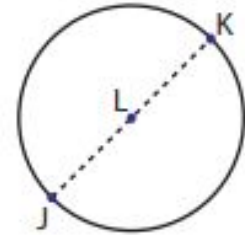


Center = _____

Radius = _____

Diameter = _____

3)



Center = _____

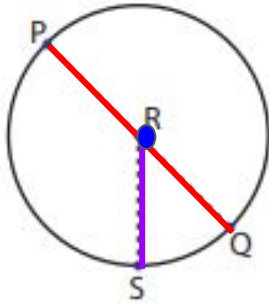
Radius = _____

Diameter = _____

Guided Practice **Answers**

Identify the parts of each circle.

1)

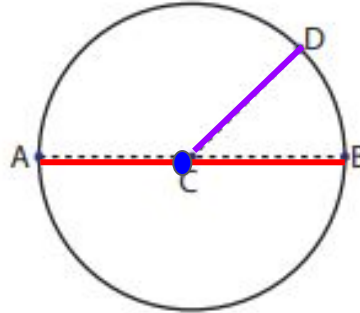


Center = **R**

Radius = **RS, RQ, RP**

Diameter = **PQ**

2)

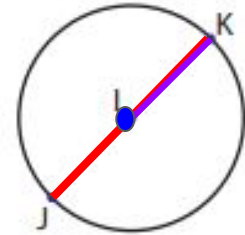


Center = **C**

Radius = **CD, AC, CB**

Diameter = **AB**

3)



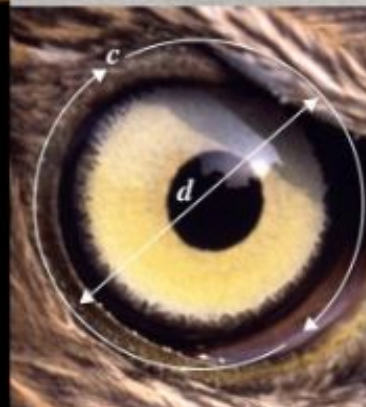
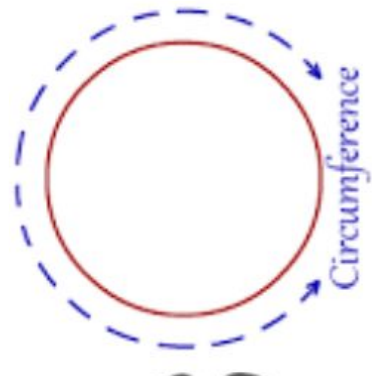
Center = **L**

Radius = **LK, LJ**

Diameter = **JK**

Examples of Circumference

Circumference

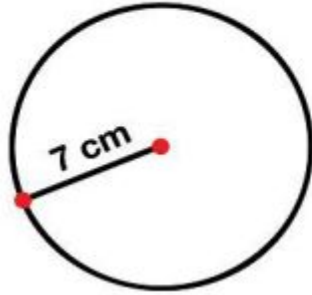


Guided Practice

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

7 cm

The radius of this circle is _____.

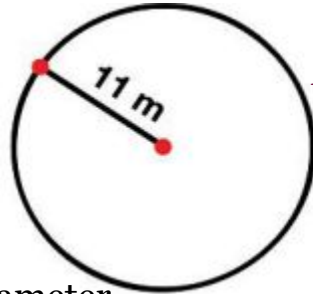
The diameter of this circle is **14 cm** $7 \times 2 = 14$.

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

$$C = \pi d$$

$$C = 3.14 \cdot 14$$

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

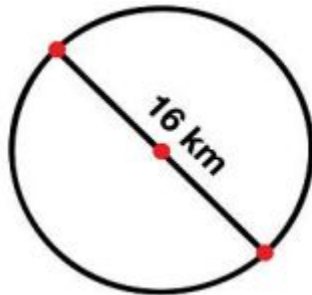


A.)

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 _____.

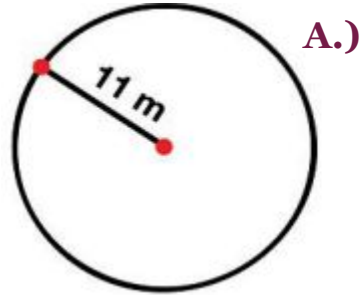
Circumference = pi times diameter

$$C = \pi d$$

$$C = 3.14d$$

Guided Practice

Answer



The radius of this circle is 11 m.

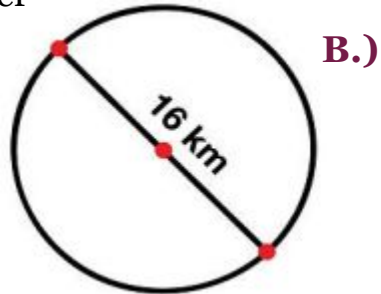
The diameter of this circle is 22 m $11 \times 2 = 22$.

The circumference of this circle is 69.08 m.

$$C = \pi d$$
$$C = 3.14 \bullet 22$$
$$C = 69.08 \text{ m}$$

Circumference = pi times diameter

$$C = \pi d$$
$$C = 3.14d$$



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.

$$C = \pi d$$
$$C = 3.14 \bullet 16$$
$$C = 50.24 \text{ km}$$

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.

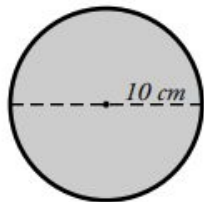


A screenshot of the Quizizz interface for a quiz titled 'Circumference' with 10 questions, created by Mr. Shepherd. The interface is dark-themed. On the left, there is a card with the quiz title, '10 questions', 'By : Mr. Shepherd', and a 'Share' button. On the right, there are three large buttons: a green 'Play quiz' button, a purple 'Flashcards' button, and a purple 'Challenge friends' button. At the bottom right, there is a 'Game settings' section with four toggle switches: 'Timer' (green), 'Memes' (green), 'Read aloud' (grey), and 'Power-ups' (green).

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 $C = \pi \times d$.

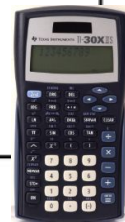


The circle pictured here has a diameter of 10 cm.

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

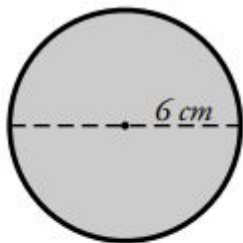
$$\pi \approx 3.14$$

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



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

a.



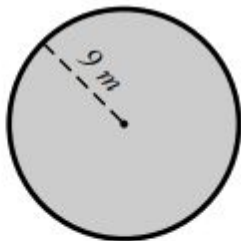
$$r = \underline{\quad} \quad d = \underline{\quad}$$

$$C = \pi \bullet \underline{\quad}$$

$$C = \underline{\quad} \bullet \underline{\quad}$$

$$C = \underline{\quad}$$

b.



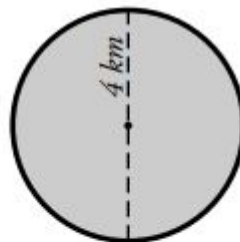
$$r = \underline{\quad} \quad d = \underline{\quad}$$

$$C = \pi \bullet \underline{\quad}$$

$$C = \underline{\quad} \bullet \underline{\quad}$$

$$C = \underline{\quad}$$

c.



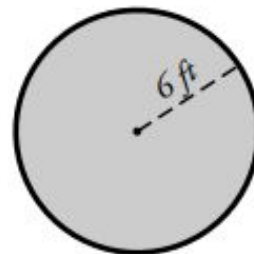
$$r = \underline{\quad} \quad d = \underline{\quad}$$

$$C = \underline{\quad}$$

$$C = \underline{\quad}$$

$$C = \underline{\quad}$$

d.



$$r = \underline{\quad} \quad d = \underline{\quad}$$

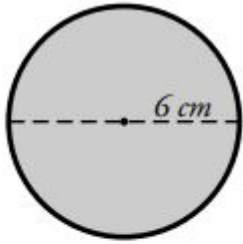
$$C = \underline{\quad}$$

$$C = \underline{\quad}$$

$$C = \underline{\quad}$$

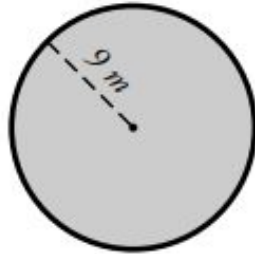
Practice Answers

a.



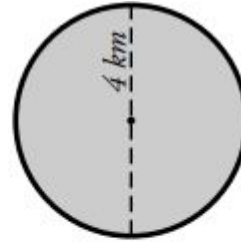
$$\begin{aligned}r &= 3 & d &= 6 \\C &= \pi \cdot 6 \\C &= 3.14 \cdot 6 \\C &= 18.84 \text{ cm}\end{aligned}$$

b.



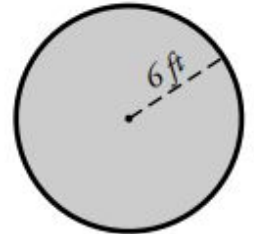
$$\begin{aligned}r &= 9 & d &= 18 \\C &= \pi \cdot 18 \\C &= 3.14 \cdot 18 \\C &= 56.52 \text{ m}\end{aligned}$$

c.



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

d.

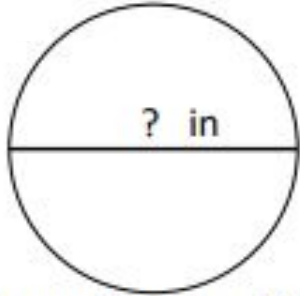


$$\begin{aligned}r &= 6 & d &= 12 \\C &= \pi \cdot 12 \\C &= 3.14 \cdot 12 \\C &= 37.68 \text{ ft}\end{aligned}$$

CHALLENGE

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

EXAMPLE

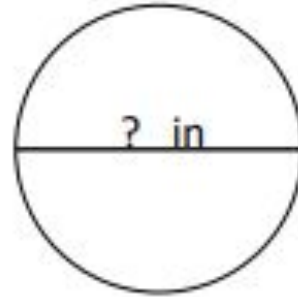


Circumference = 21.98 in

$$C = \pi d$$

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

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

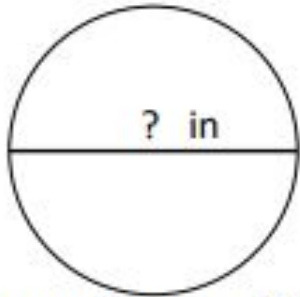


Circumference = 15.7 in

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

CHALLENGE - answers

EXAMPLE

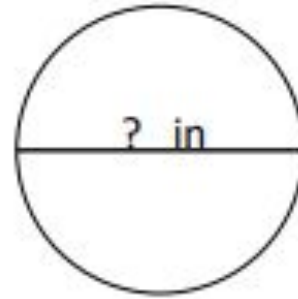


Circumference = 21.98 in

$$C = \pi d$$

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

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



Circumference = 15.7 in

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

$$15.7 = \pi \cdot d$$

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

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

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 website interface for a math game. At the top, there is a navigation bar with 'Math Games' and icons for 'Grade 6', 'Skills', 'Games', 'Standards', 'Worksheets', and 'Subscribe'. Below the navigation bar, the page title is 'Circles: Calculate Area, Radius, Circumference'. A question asks: 'The radius of a circle is 14 m. What is the circle's diameter?'. A diagram of a purple circle with a horizontal diameter line is shown. Below the diagram are four blue buttons with white text: '28 m', '37 m', '31 m', and '34 m'. A 'Scratch Pad' icon is visible in the top right corner of the question area.

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