

4-18-17

Aim: SWBAT find the area of a circle.

Do Now: State the radius or the diameter.

HW: Finish WS

• The diameter is twice the length of the radius.

$$r = 5, d = 10$$

$$r = 7.5, d = 15$$

$$r = 1000, d = 2000$$

$$r = x, d = 2x$$

• The radius is half the diameter

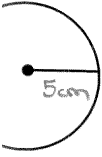
$$d = 12, r = 6$$

$$d = 30, r = 15$$


$$d = x, r = 0.5x, \frac{1}{2}x, \frac{x}{2}$$

circumference of the circle using $C = 2\pi r$. Write your answer four different ways.

EXACT

Circle with radius	Answer in terms of π .	Answer using the π button.	Answer rounded to the nearest tenth.	Answer using $\pi \approx 3.14$.
	$C = 2\pi r$ $C = 2 \cdot \pi \cdot 5$ $C = 10\pi \text{ cm}$	$C = 31.41592654\dots \text{ cm}$	$C \approx 31.4 \text{ cm}$	$C \approx 31.4 \text{ cm}$


EXACT

Circle with 20 inches.	Answer in terms of π .	Answer using the π button.	Answer rounded to the nearest tenth.	Answer using $\pi \approx 3.14$.
	$C = 2\pi r$ $C = 2 \cdot \pi \cdot 10$ $C = 20\pi \text{ in.}$	$C = 62.83185307\dots \text{ in.}$	$C \approx 62.8 \text{ in.}$	$C = 2\pi r$ $C \approx (2)(3.14)(10)$ $C \approx 62.8 \text{ in.}$


Circumference of a Circle

circumference of the circle using $C = \pi d$. Write your answer four different ways.

EXACT

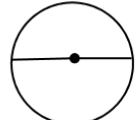
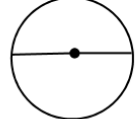
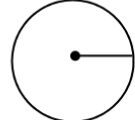
<p>with inches.</p> 	<p>Answer in terms of π.</p> $C = \pi d$ $C = \pi \cdot 7$ $C = 7\pi \text{ in.}$	<p>Answer using the π button.</p> $C = 21.99114858... \text{ in.}$ <p style="text-align: center;">21.99</p>	<p>Answer rounded to the nearest tenth.</p> <p style="text-align: center;">*</p> $C \approx 22.0 \text{ in.}$	<p>Answer using $\pi \approx 3.14$.</p> $C \approx (3.14)(7)$ $C \approx 21.98 \text{ in.}$
---	--	---	---	--

EXACT

<p>with radius</p>  <p>20m, then 40m</p>	<p>Answer in terms of π.</p> $C = \pi d$ $C = \pi \cdot 40$ $C = 40\pi \text{ m}$	<p>Answer using the π button.</p> $C = 125.6637061... \text{ m}$	<p>Answer rounded to the nearest tenth.</p> $C \approx 125.7 \text{ m}$	<p>Answer using $\pi \approx 3.14$.</p> $C \approx 125.6 \text{ m}$
---	--	---	---	--

Finding the Area, the Radius, or the Diameter

Find the area of each circle using $A = \pi r^2$. Write your answer four different ways.

<p>1. A circle with diameter 20 inches.</p>  <p>$r = 10$</p>	<p>Answer in terms of π.</p> <p>$A = \pi r^2$ $A = \pi \cdot 10^2$ $A = \pi \cdot 100$ $A = 100\pi \text{ in.}^2$</p>	<p>Answer using the π button.</p> <p>$A = \pi r^2$ $A = \pi \cdot 10^2$ $A = 100\pi$ $A = 314.1592654 \dots \text{ in.}^2$</p>	<p>Answer rounded to the nearest tenth.</p> <p>$A = \pi r^2$ $A = \pi \cdot 10^2$ $A = 100\pi$ $A = 314.1592654 \dots \text{ in.}^2$ $A \approx 314.2 \text{ in.}^2$</p>	<p>Answer using $\pi \approx 3.14$.</p> <p>$A = \pi r^2$ $A \approx (3.14)(10^2)$ $A \approx 314 \text{ in.}^2$</p>
<p>2. A circle with diameter 7 inches.</p> 	<p>Answer in terms of π.</p>	<p>Answer using the π button.</p>	<p>Answer rounded to the nearest tenth.</p>	<p>Answer using $\pi \approx 3.14$.</p>
<p>3. A circle with radius 20 meters.</p> 	<p>Answer in terms of π.</p>	<p>Answer using the π button.</p>	<p>Answer rounded to the nearest tenth.</p>	<p>Answer using $\pi \approx 3.14$.</p>