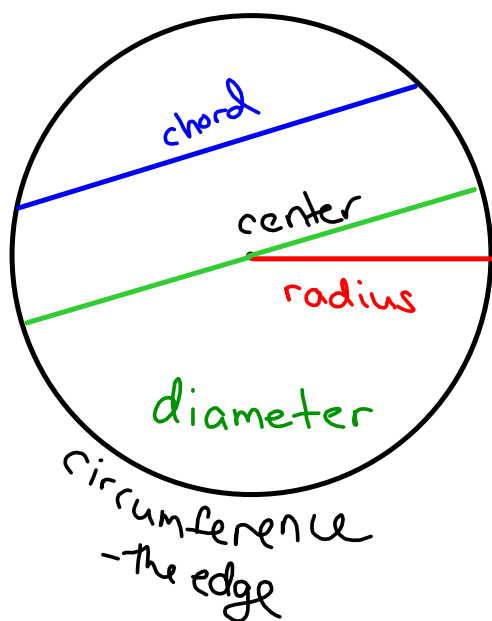


4-13-18

Aim: SWBAT develop and use the circumference formula.

HW: Finish Classwork

Do Now: **Turn in Take Home Test**

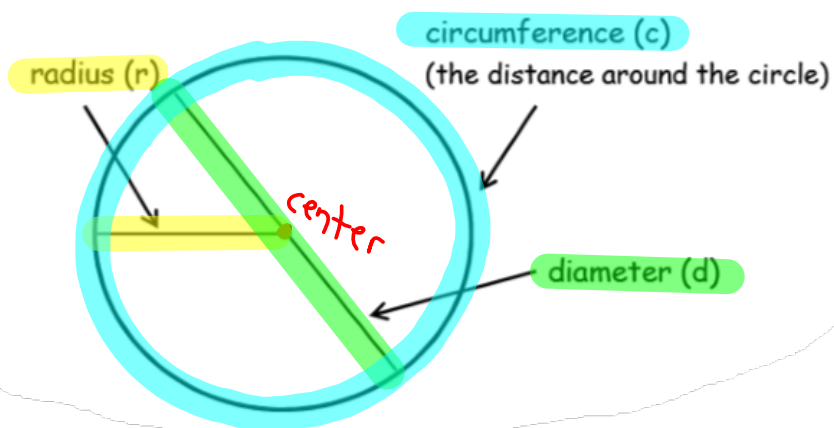


DEFINITIONS (refer to the diagram below to "see" how the definitions apply to the circle)

Radius - The distance from the center of the circle to any point on the circle.

Diameter - A line segment that goes through the center of the circle and has both endpoints on the circle.

Circumference of a circle - The distance around a circle.



• 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

$$d = 12, r = 6$$

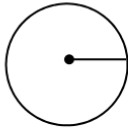
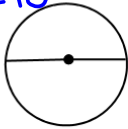
$$d = 30, r = 15$$

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

Circumference of a Circle

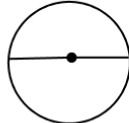
Find the circumference of the circle using $C = 2\pi r$. Write your answer four different ways.

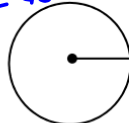
EXACT

<p>1. A circle with radius 5 cm.</p> 	<p>Answer in terms of π.</p> $C = 2\pi r$ $C = 2 \cdot \pi \cdot 5$ $C = 10\pi \text{ cm}$	<p>Answer using the π button.</p> $C = 2\pi r$ $C = 2 \cdot \pi \cdot 5$ $C = 10\pi$ $C = 31.41592 \dots \text{ cm}$	<p>Answer rounded to the nearest tenth.</p> $C = 2\pi r$ $C = 2 \cdot \pi \cdot 5$ $C = 10\pi$ $C = 31.41592 \dots$ $C \approx 31.4 \text{ cm}$	<p>Answer using $\pi \approx 3.14$.</p> $C = 2\pi r$ $C \approx (2)(3.14)(5)$ $C \approx 31.4 \text{ cm}$
<p>2. A circle with diameter 20 inches.</p> <p>$r = 10$</p> 	<p>Answer in terms of π.</p> $C = 2\pi r$ $C = 2 \cdot \pi \cdot 10$ $C = 20\pi \text{ in.}$	<p>Answer using the π button.</p>	<p>Answer rounded to the nearest tenth.</p>	<p>Answer using $\pi = 3.14$.</p>

Circumference of a Circle

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

<p>3. A circle with diameter 7 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>	<p>Answer rounded to the nearest tenth.</p>	<p>Answer using $\pi = 3.14$.</p>
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<p>4. A circle with radius 20 meters.</p> <p>$d = 40$</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>	<p>Answer rounded to the nearest tenth.</p>	<p>Answer using $\pi = 3.14$.</p>
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