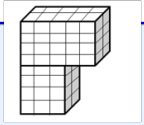
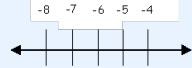

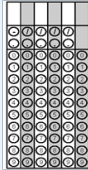
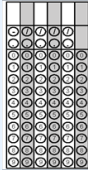




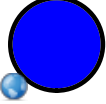
Week 8 Warm Ups

M e n	The distance we drove today can be calculated using the formula $d = 22t$ where d represents distance traveled and t represents time. What is the constant of proportionality?	Solve for x .		
		$5x + x + 7 + 2x + x + 8 = 24$		
		$x = 1 \quad 9x + 15 = 24$		
T h u r	3.2 pounds of nails cost \$11.20. How much should one pound of nails cost?	$2\{12 + [(7 - 2) \times (3 - 1)]\}$		
F r i	Find the volume.	Write and graph the inequality for "-6 is the highest possible value."		
				
M2	T2	W1	Th 2	F1
				

Created by E. Nash

Mar 16-7:43 AM

Circles, Circumference of Circles, and Area of Circles

While watching the video, write a definition of the following words. 

diameter:

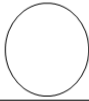
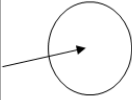

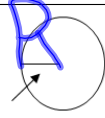

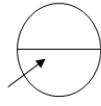
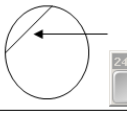


radius:

circumference:

pi:

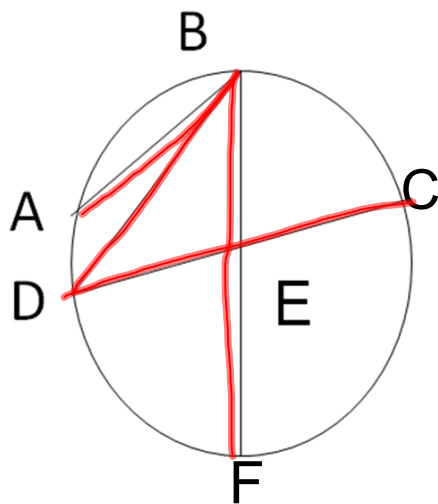
We will discuss the area of a circle tomorrow!

Jan 3-1:18 PM

Vocabulary		
Word	Definition	Picture
circle	A set of all points in a plane that are the same distance from a given point called the center of a circle	
center of a circle	The point inside of the circle that is the same distance from all the points on the circle	
radius  ^P	Line segment whose end points are the center of a circle and any point on the circle	
diameter 	Line segment that passes through the center of a circle and whose endpoints lie on the circle	
chord	Line segment whose endpoints are any two points on a circle	
pi 	The constant 3.14, represents the ratio between the circumference and the diameter of a circle.	

Jan 3-1:07 PM

Name the parts of the circle:



a. radii –
 $\overline{EF}, \overline{DE}, \overline{CE}, \overline{BE}$

b. diameters –
 $\overline{BF}, \overline{DC}$

c. chords –
 $\overline{AB}, \overline{DB}, \overline{DC}, \overline{DF}$

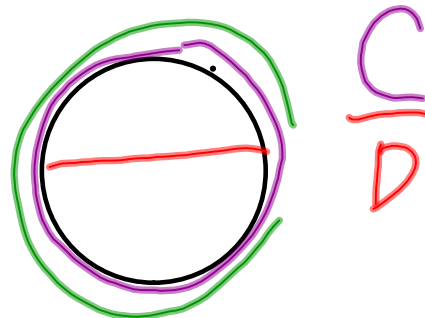
Jan 3-1:21 PM

Key Concept: Circumference of a Circle

- the product of π and the circle's diameter d
- $C = \pi d$

or

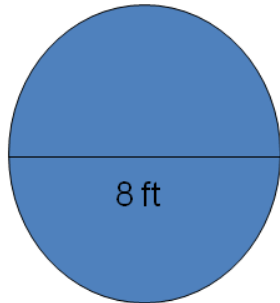
- two times the product of π and the circle's radius r .
- $C = 2\pi r$



Jan 3-1:23 PM

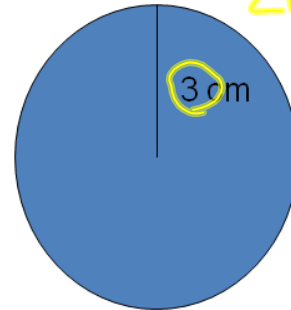
Example: Find the circumference of each circle. Use 3.14 for π and round to the nearest hundredth.

a.



$$2\pi r = 2\pi(4) = 25.12 \text{ FT}$$

$$2\pi r$$



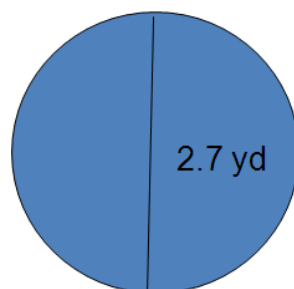
$$2(3.14)3$$

$$18.84 \text{ cm}$$

$$6\pi$$

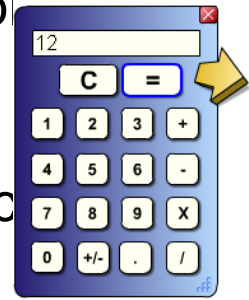
Jan 3-1:24 PM

You Try - Find the circumference. Use 3.14 for π and round to the nearest hundredth.



Jan 3-1:24 PM

Finding the length of the diameter or radius given the circumference. Use 3.14 for π



If the circumference of a circle is 37.68 cm, find the diameter. (Hint: use an equation.)

$$\frac{37.68}{2\pi} = \frac{2\pi r}{2\pi}$$

$$12 \text{ cm} = D$$

$$C = \pi$$

Jan 3-1:25 PM

You try:

If the circumference of a circle is 47.1 meters, find the diameter.

If the circumference of a circle is 56.52 in, find the radius.

Jan 3-1:28 PM

Key Concept: Area of a Circle

- the product of π and the square of the circle's radius r .

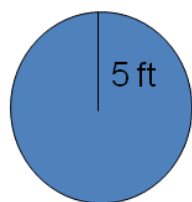
$$A = \pi R^2$$

- $A = \pi r^2$

Jan 3-1:50 PM

Example: Find the area of each circle. Use 3.14 for π and round to the nearest hundredth.

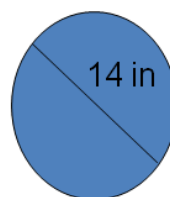
a.



$$A = R^2$$

$$\begin{aligned} R &= 5 \\ \pi(5)^2 \\ \pi(25) \\ 78.5 \text{ ft}^2 \end{aligned}$$

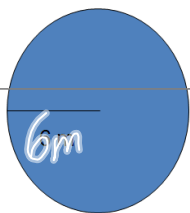
b.



$$\begin{aligned} A &= \pi r^2 \\ C &= 2\pi r \end{aligned}$$

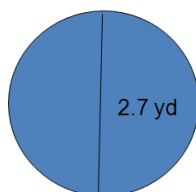
Mar 3-2:52 PM

You Try - Find the area of the circle. Use 3.14 for π and round to the nearest hundredth.



$$\begin{aligned} A &= \pi r^2 \\ &= \pi 36 \\ &= 113.04 \text{ m}^2 \end{aligned}$$

You Try - Find the circumference. Use 3.14 for π and round to the nearest hundredth.



Mar 3-2:53 PM

Mar 3-2:53 PM