

Promethium Board – Screen #1

Vocabulary - Bell Ringer – Students will write the vocabulary words in their notebook as they enter and after the bell rings.

Circle: a round figure consisting of all points at a given distance from a point within it called the center.

Center of Circle: the point from which all points on a *circle* are the same distance.

Radius: the distance from the center of the circle to the outside edge.

Diameter: The diameter of a circle is longest distance across a circle.

Circumference: The circumference, or perimeter, of a circle is the distance around the outer edge.

Pi (π): a number equal to the circumference / diameter of a circle.

Promethium Board – Screen #2

Formulas and Diagram

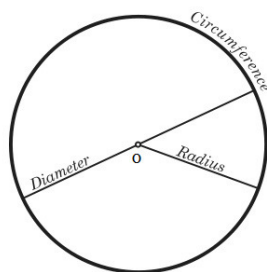
$$\pi = 3.14$$

$$d = 2r$$

$$c = \pi d$$

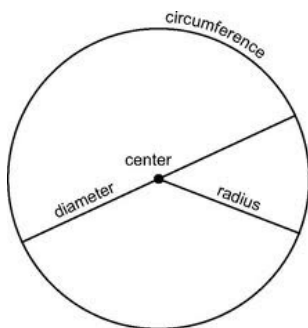
$$c = \pi (2r) = 2 \pi r$$

$$r = d / 2$$



Promethium Board – Screen #3

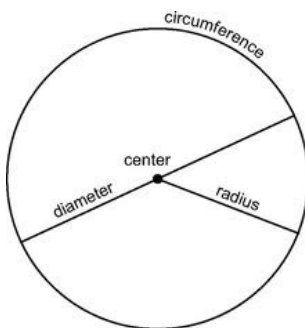
Problems I will work on the board.



Given $r = 1$

Find $d =$

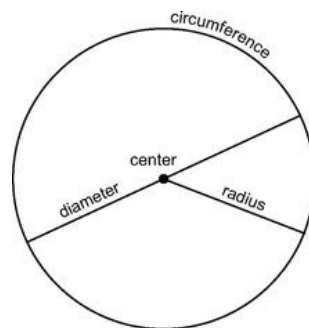
Find $c =$



Given $d = 4$

Find $r =$

Find $c =$



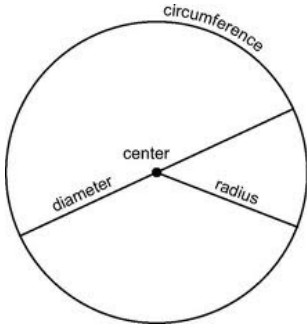
Given $c = 8\pi$

Find $d =$

Find $r =$

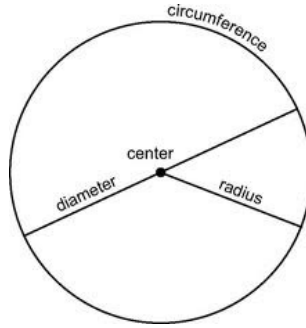
In-Class Exercises Handout – Page 1 of 3
Circle, radius, diameter, circumference

Name _____ Date _____ Period _____



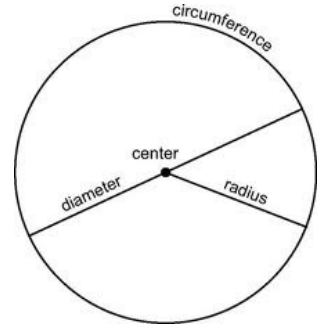
Problem #1

Given $r = 10$
Find $d =$
Find $c =$



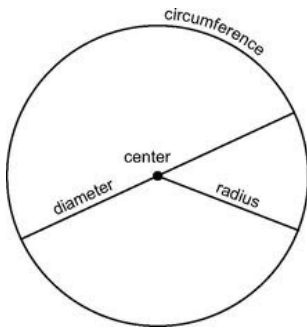
Problem #2

Given $d = 40$
Find $r =$
Find $c =$



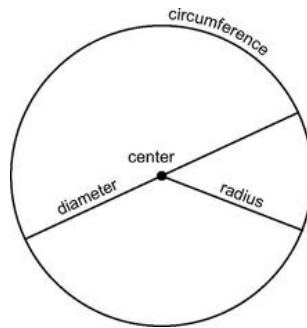
Problem #3

Given $c = 80\pi$
Find $d =$
Find $r =$



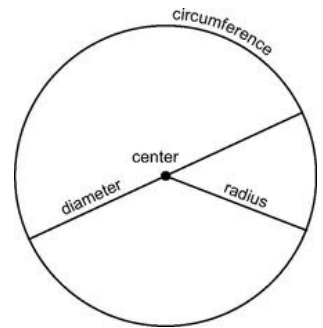
Problem #4

Given $r = 20$
Find $d =$
Find $c =$



Problem #5

Given $d = 20$
Find $r =$
Find $c =$



Problem #6

Given $c = 20\pi$
Find $d =$
Find $r =$

In-Class Exercises Handout – Page 2 of 3
Circle, radius, diameter, circumference

Name _____ Date _____ Period _____

Fill in the correct word answer.

#7. Diameter is twice the _____ ?

#8. Circumference is equal to diameter times (x) _____ ?

#9. The _____ of a circle is the point in the middle of the circle.

Word Problems

#10. When Marie won the swimming meet she received a round gold medal with a diameter of 3 inches. What is the circumference of her gold medal?

#11. The distance all the way around a circular walkway is 240π feet. What is the longest distance from one side to the other side walking through the middle?

#12. During a class president campaign Jessie passed out “Vote For Jessie” buttons. The circumference of her button had a radius of 2 inches. What was the button’s diameter?

In-Class Demonstration / Exercises Handout – Page 3 of 3
diameter, circumference, rotation, distance

Each student will be given a robot wheel and each table will have one or more rulers or tape measures. Measure the diameter of the wheel and calculate the circumference of the wheel. One circumference = one rotation. The robot will be demonstrated on one teacher and the actual distance will be measured with a tape measure placed on the table.

Distance traveled = # of rotations X circumference

1. Measure the diameter of the wheel. $d =$ _____
2. Calculate the circumference of the wheel. $c =$ _____
3. What distance will the robot travel if it is programmed to move the following rotations?

a. 1 rotation. Calculated Distance = _____

Actual Traveled Distance = _____

b. 2 rotations. Calculated Distance = _____

Actual Traveled Distance = _____

c. 2.5 rotations. Calculated Distance = _____

Actual Traveled Distance = _____

d. 3 rotations. Calculated Distance = _____

Actual Traveled Distance = _____