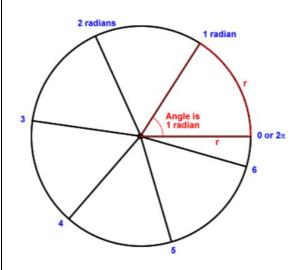
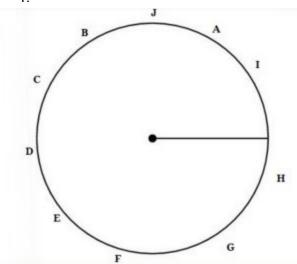
### A13.3 Area & Length of Sectors

#### Name

Radian Key



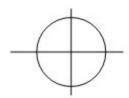
1.

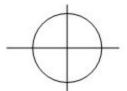


Write the approximate radian measure for each letter.

2. Draw the route of the following angle to its ending spot is  $120^{\circ}$ .

3. Draw the route of the following angle to its ending spot is  $175^{\circ}$ .





What is the approximate radian measure here:

What is the approximate radian measure here:

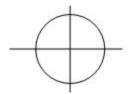
The length of the arc from 0 to  $120^{o}$  if the radius is 5 inches.

The length of the arc from 0 to  $175^o$  if the radius is 3 inches.

The area of the sector from 0 to  $120^{o}$  if the radius is 5 inches.

The area of the sector from 0 to  $175^{o}$  if the radius is 3 inches.

4. Draw the route of the following angle to its ending spot is  $345^{\circ}$ .

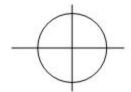


## What is the approximate radian measure here:

The length of the arc from 0 to  $345^{\circ}$  if the radius is 4 inches.

The area of the sector from 0 to  $345^{\circ}$  if the radius is 4 inches.

4. Draw the route of the following angle to its ending spot is  $225^{\circ}$ .

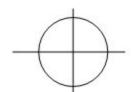


#### What is the approximate radian measure here:

The length of the arc from 0 to  $225^{\circ}$  if the radius is 8cm.

The area of the sector from 0 to  $225^{o}$  if the radius is 8cm.

5. Draw the route of the following angle to its ending spot is  $60^{\circ}$ .

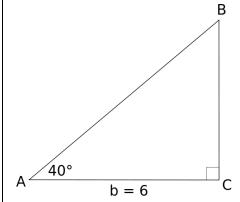


#### What is the approximate radian measure here:

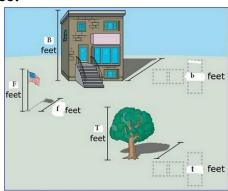
The length of the arc from 0 to  $60^{\circ}$  if the radius is 6cm.

The area of the sector from 0 to  $60^{\circ}$  if the radius is 6cm.

6. Find the lengths of sides BC and AB.



# 7. The flagpole is 10 feet tall and the shadow is 4 feet



If the shadow of the tree is 3 feet, how tall is the

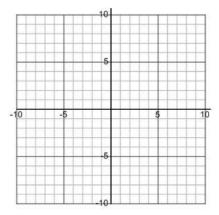
8. Find the center and radius of the circle.

$$x^2 + 12x + y^2 - 10x = -57$$

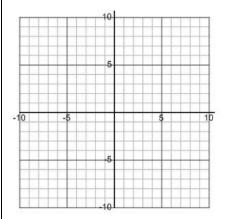
Center Radius Form is:

$$(x )^2 + (y )^2 =$$

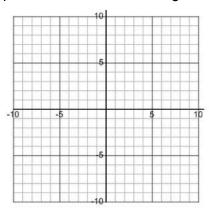
9. A circle has a center at (7,-2) and goes through the point (8,2). Use the pythagorean theorem to find the radius, and then write the equation of the circle.



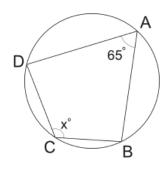
10. Take the circle  $x^2 + y^2 = 64$  Move it left 3 and up 4 and dilate it by a factor of  $\frac{1}{4}$ . Write the equation of the new circle.



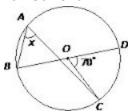
11. Given the Points A(-11,0) and B(4,10) find the point C that divides the segment in a 2:3 ratio.



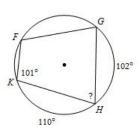
12. Solve for x.



13. Solve for x.



14. What is the measure of angle H?



- A) 81°
- B) 48°
- C) 104°
- D) 74°

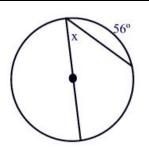
15. Draw a Venn Diagram for the following. Of 35 families surveyed, 10 families have cars, 20 families have vans. There are 25 that own a Car OR a Van. How many own a Car AND a Van?

How many only own a Van?

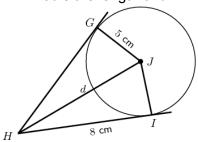
How many do not own a car or a van?

What is the PROBABILITY of a family owning Both a car and a van?

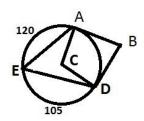
16. Solve for x.



17. What is the length of d?



18. Find the measure of angle C, and Angle B.

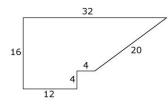


			Body Image			
			About Right	Overweight	Underweight	Total
	Gender	Female	560	163	37	760
		Male	295	72	73	440
		Total	855	235	110	1200

19.

- a) What is the probability of a person being underweight given they are male?
- b) Find P(about right | Female)

20. Kim mows lawns on the weekends. The shape of her most unusual yard is shown, with dimensions in feet.



How many square feet of grass does Kim mow in this lawn?

- 336 sq ft
- 352 sq ft
- © 360 sq ft
- 368 sq ft

21.

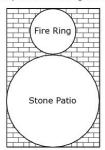
A triangle is defined by the points A (13, 13), B (18, 9), and C (8, 9).

What is the area of the triangle?

- 20.0 square units
- B 20.5 square units
- 22.8 square units
- 32.0 square units

22.

Ms. Braun builds a circular stone patio in her backyard. She adds a circular fire ring tangent to the stone patio. She frames these two circles with a rectangular border that is tangent to the fire ring and patio. The remaining area inside the rectangle is brick.



The patio is 12 feet in diameter and the ring is 6 feet in diameter.

What is the total area covered by brick?