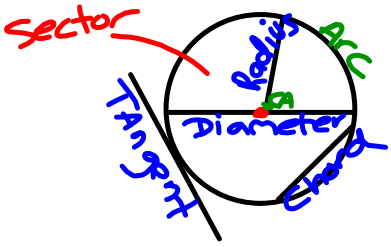
NAME:_____ Circle Review Pack LESSONS 28 to 35

1. Match the following terms with the correct definition.

A+B Arc	A. Part of a circle defined by a chord or 2 radii.
F Chord	B. Part of the circumference.
C Diameter	C. The longest chord.
E Disc	D. A line segment with one endpoint at the center of a circle and the other at any given point on the circle.
D Radius	E. An area of a plane, which includes a circle and its inner surface.
H Sector	F. A line segment joining any two points on a circle.
G Tangent	G. A segment that only touches one point on the circle.
	H. Part of a disc defined by 2 radii

2. Label the following: ~~central angle / radius / diameter / chord / arc / tangent / sector~~



3. What is the radius of a circle, if it has a diameter is 8cm? 4cm

What is the central angle that intercepts an arc that is one fifth of a circle? 72°

$\frac{360}{5} =$

4. Calculate the following:

Radius: 4cm

Circumference = $2\pi r = 25.12$cm

C= 18.84 km $r = \frac{C}{2\pi} = \frac{18.84}{6.28}$

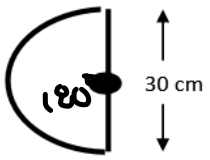
Radius = 3km

D = 28m $r = 14$

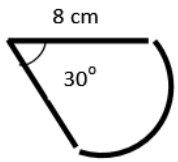
Area = $\pi r^2 = 615.44 m^2$

Area is 157.08cm² $r = \sqrt{\frac{A}{\pi}} = \sqrt{\frac{157.08}{3.14}}$

Diameter = $2(7.07) = 14.15$cm $= \sqrt{50}$



Arc = 47.1 cm



Sector = 16.75cm²

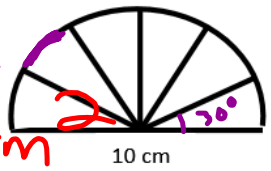
$\frac{CA}{360} = \frac{Arc}{C = d\pi}$

$\frac{100}{360} = \frac{Arc}{94.2}$

$\frac{CA}{360} = \frac{Sector}{Area = \pi r^2 = \pi 8^2}$

$\frac{30}{360} = \frac{S}{200.96}$

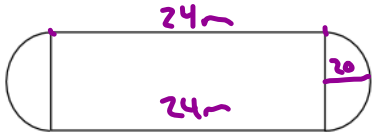
5. Half of a pizza remains in the fridge. It is in a shape of a semicircle. If the pizza includes 6 equal slices, what is the area of each slice?



6. A circle with a radius of 6cm is inscribed in a square. What is the area of the shaded region?

7. The crust of a pizza slice measures 14.4 cm. The slice portion corresponds to a central angle of 60°. Calculate the radius of the pizza.

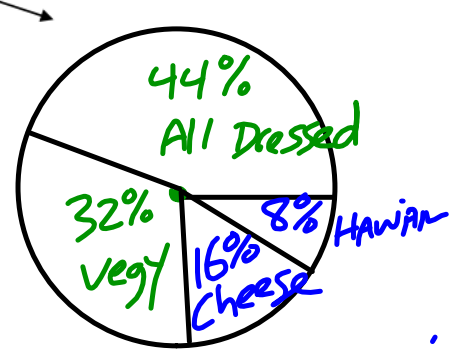
8. A track field is composed of a rectangle with a length of 24 m and two semicircles at its ends. The radius of the circle is 20 m. Calculate the perimeter of the track field below.



9. A circle has an arc of 10cm intercepted with a 40° angle. Find the area of this sector.

10. Complete the chart below and then construct a circle graph using this data.

Pizza Topping	# of people	%	Angle Size
All Dressed	11	44	158.4°
Vegetarian	8	32	115.2
Cheese	4	16	57.6
Hawaiian	2	8	28.8
TOTAL	25	100%	360



***practice constructions (go over lesson 29) on a separate sheet of paper.