**Geometry Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**10.1 & 10.2 Guided Notes**

**Review: 10-1 Circles and Circumference**

A circle is the set of all points that are equidistant from the \_\_\_\_\_\_\_\_\_\_. A circle is named by its \_\_\_\_\_\_\_\_\_\_.

* Chord: Any segment with both \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on the circle.
* Diameter: A chord that passes through the \_\_\_\_\_\_\_\_\_\_\_\_ of the circle.
* Radius: Any segment with endpoints that are on the \_\_\_\_\_\_\_\_ and a point \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Name a chord:

Name a diameter:

Name a radius:

B

F

A

D

E

C

Formulas for Circumference

C = or C =

Formula for Area:

A=

The circumference of a circle is the distance \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the circle.



1. Find the circumference of the following circle

Using the equations for circumference ( C ) in terms or the radius (r) and the diameter (d), answer the questions.

|  |  |  |
| --- | --- | --- |
|  |  |  |

Find the area of the circle in the following cases*:*

1. 6. 7.



**10-2 Measuring Angles and Arcs**

A central angle has the \_\_\_\_\_\_\_\_\_\_ of a circle as its \_\_\_\_\_\_\_\_\_\_\_\_, and its sides contain two \_\_\_\_\_\_\_\_\_\_ of the circle.

1

2

3

/1 , /2 and /3 are all central angles.

/1 + /2 + /3 = 360° since they form the whole circle.

\_\_\_\_\_\_ is a minor arc. A \_\_\_\_\_\_\_\_\_\_\_ arc is an arc that measures less than \_\_\_\_\_\_\_\_

\_\_\_\_\_\_ is a major arc. A \_\_\_\_\_\_\_\_\_\_ arc is an arc that measures more than \_\_\_\_\_\_\_.

\_\_\_\_\_ is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which has a measure of \_\_\_\_\_\_

* A central angle separated the circle into parts, each of which is an \_\_\_\_\_\_.
* The measure of each arc is related to the measure of its central angle.

Find each measure:

1.
2. m
3.
4. m

**Review:** To find the length of an arc use the formula: