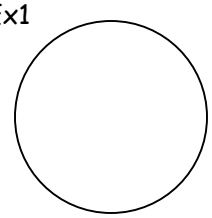
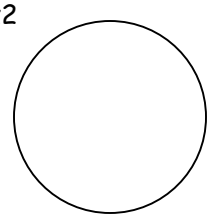
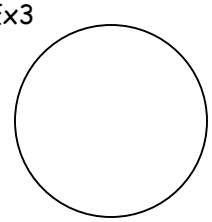
Geometry/Trig 2 Name: _____

Section 11-5: Circumference and Area of Circles Date: _____

Circumference of a circle _____.

Formula:

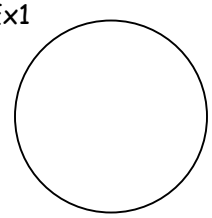
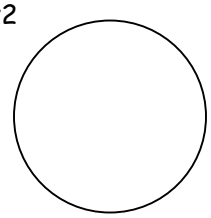
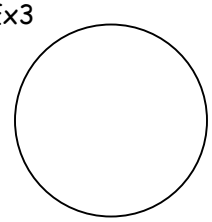
r: _____

Ex1	Ex2	Ex3
		

Area of a circle: _____.

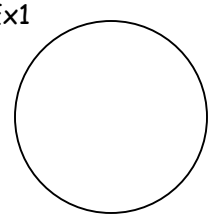
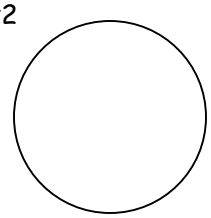
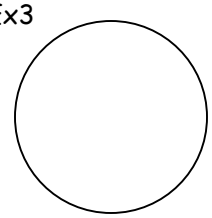
Formula:

r: _____

Ex1	Ex2	Ex3
		

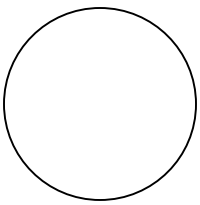
Arc Length: _____

_____.

Ex1	Ex2	Ex3
		

Arc Length Formula:

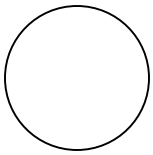
Ex4



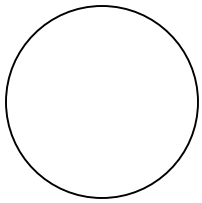
Area of a Sector: _____

_____.

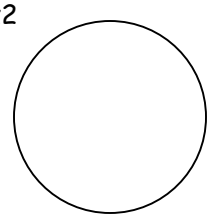
Area of Sector Formula:



Ex1



Ex2



Find the circumference and area. Leave each answer in terms of π.

1. $r = 6$

   $C =$ _____

   $A =$ _____

2. $d = 10$

   $C =$ _____

   $A =$ _____

3. Find the circumference and area, correct to the nearest tenth, of a circle with diameter 4.2. Use $\pi \approx 3.14$.

   $C =$ _____, $A =$ _____

4. Find the circumference and area of a circle with radius $1\frac{3}{11}$. Use $\pi \approx \frac{22}{7}$.

   $C =$ _____, $A =$ _____

5. The area of a circle is 48π. Find the circumference. _____

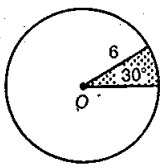
6. The area of sector AOB is 36π and $m\angle AOB = 40$. Find the radius of $\odot O$. _____

7. A dog's leash is tied to a post in the ground, leaving the dog free to roam over a circular region. If the leash is 6.5 m long, find the area of the region to the nearest square meter. Use $\pi \approx 3.14$.

   _____

In Exercises 8 and 9, O is the center of the circle. Find the arc length and area of each shaded sector.

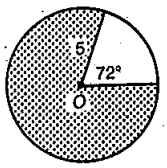
8.



arc length = _____

area = _____

9.

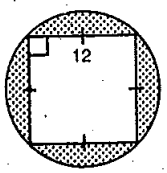


major arc length = _____

area = _____

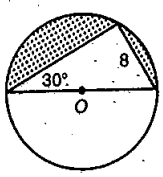
Find the area of each shaded region. In Exercise 11, O is the center of the circle.

10.



area = _____

11.



area = _____