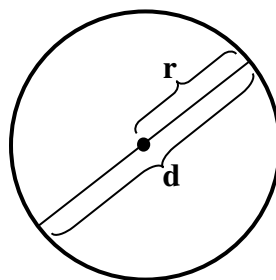**Geometry Note-Taking Guide**
SECTION 1.2 – Circumference and Area of Circles

The distance from the center of a circle

 to its edge is called the _____, ____.

The distance across a circle, passing through

the center, is called the _____, ____.

The perimeter of a circle is more specifically called the _____, ____.

The symbol π is called _____, which is approximately equal to ($\approx$) _____.

The formula for the circumference of a circle is _____.

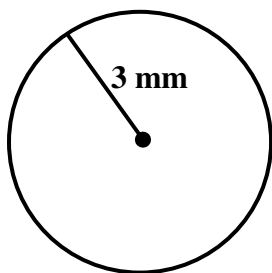The formula for the area of a circle is _____.

Ex 1:
Find the <u>circumference</u> and <u>area</u> of the circle for part a) and b).   Find the <u>area</u> of the circle.
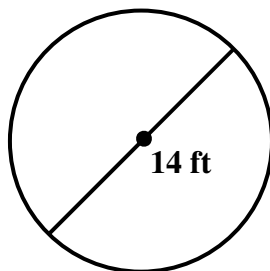Leave answer in terms of π.   Round answer to the nearest tenth decimal.

a)   b)   c)

3 mm   **14 ft**   **4**

Ex 2:
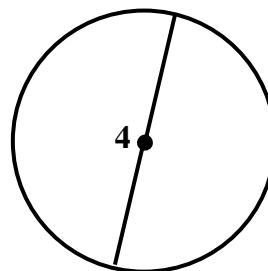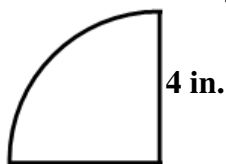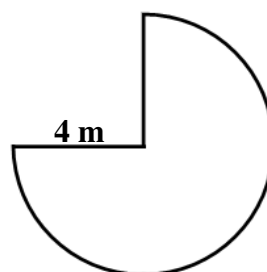Find the area of the figure. Leave answer in terms of π.
a)   b)

4 in.

4 m

Ex 3:

a) A rectangle has a width of 3 inches and its perimeter is 20 inches. What is the length of the rectangle?

b) The area of a rectangle is 54 cm^2 and its base is 9 cm. What is the height of the rectangle?

c) The area of a triangle is 84 square units and its height is 12 units. What is the length of the base of the triangle?

d) The area of a triangle is 56 $in.^2$ and its base is 7 in.. What is the height of the triangle?

e) The circumference of a circle is 14π yd. What is the diameter of the circle?

f) The area of a circle is 81π m^2. What is the radius of the circle?

Ex 4:

a) The perimeter of a rectangle is 20 inches and the width is 3 inches. What is the area of the rectangle?

b) The length of a rectangle is two less than three times the width. Given the perimeter is 76 ft, find the dimensions (width and length) of the rectangle.