**Area and Circumference of a Circle**

**Area:**

Formula: $A= πr^{2}$ or A = (3.14 x r x r) (Hint: There is NO diameter formula)

Note: **If given a diameter, you must solve for radius using the following:** $r=d/2$**, put the diameter value in for “d” divide by 2 and you will get your radius for the area formula**

Ex (1): What is the area of the circle given a **radius** of **4.**

 A = 3.14 x (r x r) = 3.14 x (**4** x **4**) = 3.14 x 16 = 50.26 **Answer: 50.26**

Ex (2): What is the area of the circle given a **diameter** of 10.

1. r = d/2 = 10/2 =  **5**
2. A = 3.14 x (r x r) = 3.14 x (**5** x **5**) = 3.14 x 25 = 78.54  **Answer: 78.54**

CFU:

1. What is the area of the circle given a diameter of 35.

**Circumference:**

Formulas: C = πd or C = 3.14 x d and C = 2πr or C = 2 x 3.14 x d

Note: The **Diameter is 2 times the radius**.

Ex (3): What is the circumference of the circle given a **radius** of **14**

 C = 2 x 3.14 x r = 2 x 3.14 x **14** = 87.96 **Answer: 87.96**

Ex (4): What is the circumference of the circle given a **diameter** of **12.5**

C = 3.14 x d = 3.14 x **12.5** = 39.27  **Answer: 39.27**

CFU:

1. What is the circumference of a circle given a radius of 27.