**Circumference of a Circle**

Vocabulary:

Radius – line segment with one endpoint at the center of the **circle** and the other endpoint on the **circle**

Diameter – line segment that passes through the center of the **circle** and whose endpoints lie on the **circle**

Circumference – distance around the **circle**

Formulas: C = πd and C = 2πr (***Diameter is 2 times the radius***)

Note: **For π it is best to press the calculator button displaying the π symbol for the most accurate answer or it you do not have a calculator type in 3.14 for the value of π**

Ex. (1) – An irrigation sprinkler waters a **circular** region with a **radius of 14 feet**. Find the **circumference** of the region watered by the sprinkler.

Use the formula: **C = 2πr** (Hint: the scenario gives you a radius of 14, NO diameter info given)

C = 2πr 🡪 C = 2π(14) 🡪  **C = 87.96 Feet**

Note**: If the scenario asks you to leave the answer in terms of π, you just multiply the two values and state the value with π next to the value. (ie… C = 2π(14) 🡪 C = 28π Feet)**

Ex. (2) – Savannah’s **circular** garden has a **diameter of 12.5 feet**. She wants to enclose the garden with edging that costs **$2 per foot**. How much will the edging cost?

Use the formula: **C = πd** (Hint: the scenario gives you a diameter of 12.5, NO radius info given)

**Step(1): Find the circumference of the garden**

C = πd 🡪 C = π(12.5) 🡪 **C = 39.27 Feet**

**Step(2): Find the cost of the edging**

Circumference of garden is 39.27 Feet Cost of edging per foot is $2

**Total Cost of edging = 39.27 x 2 = $78.54**