

## U12 Topic 5 – Given Circumference Find the Area

**Aim:** What is the relationship between circumference and area?

$$C = 2\pi r$$

$$A = \pi r^2$$

**Recall:**

1.) The circumference of a circle is  $24\pi$  cm.  
Find the **radius** of the circle.

2.) Find the **area** of a circle whose radius  
measures 12 cm.

**Model# 1:** The circumference of a circle is  $20\pi$  meters. Find the **area** of the circle.  
Round to the nearest *tenth*.

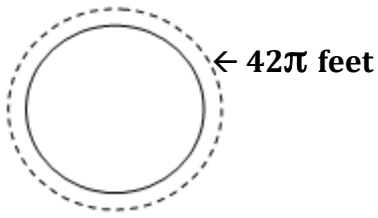
$C \rightarrow A$

**Step 1: Find r given C.**

**Step 2: Substitute r to find A.**

**Try It!** Find the **area** of the circle below. Leave your answer in terms of  $\pi$ .

C  $\rightarrow$  A



<p><b>Step 1: Find r given C.</b></p>	<p><b>Step 2: Substitute r to find A.</b></p>
---------------------------------------	-----------------------------------------------

**On Your Own!**

1.) The circumference of a circle is  $8\pi$  inches, what is the **area**? Round to the nearest *tenth*.

<p><b>Step 1: Find r given C.</b></p>	<p><b>Step 2: Substitute r to find A.</b></p>
---------------------------------------	-----------------------------------------------

2.) Find the **circumference** and **area** of the pizza shown below. Round to the nearest *whole number*.

a) Circumference

b) Area

