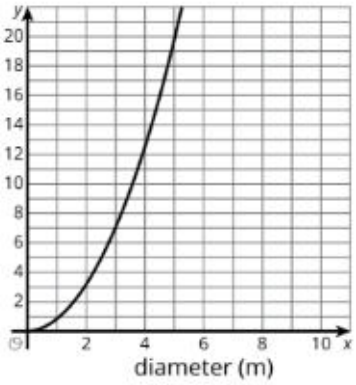
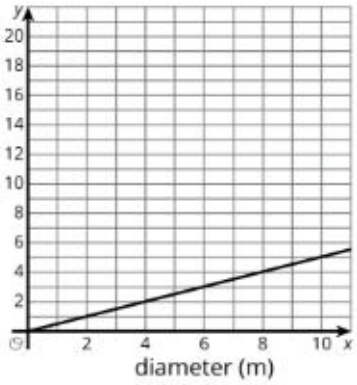
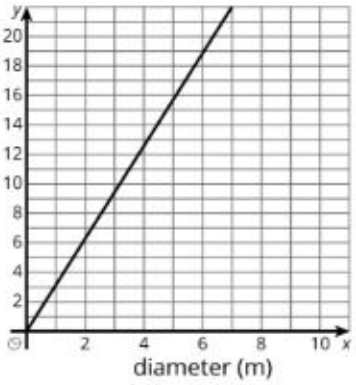
Name: _____ Class Period: _____ Unit 3 Study Guide

1) Label the following as graphs relating diameter to circumference, area, or the radius. Give an explanation for why you chose each graph.

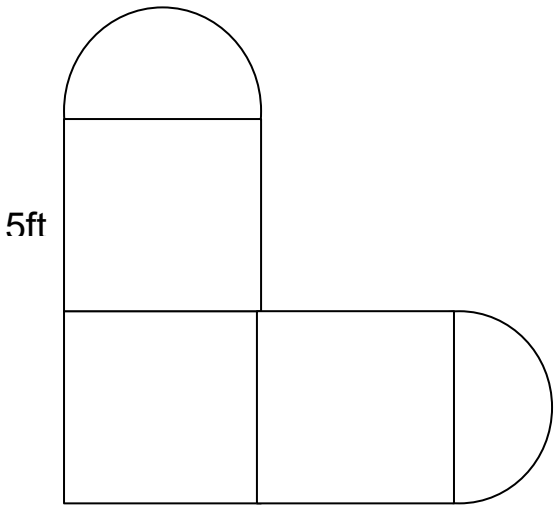




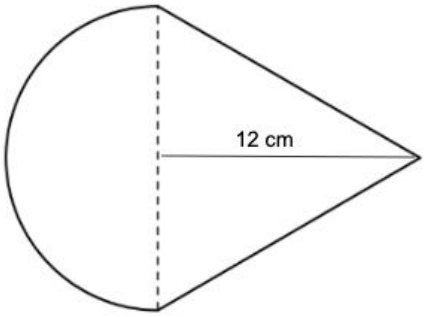


2) Calculate the perimeter and area of the following shapes. Put the answer in pi notation and rounded to the nearest tenth.

a)



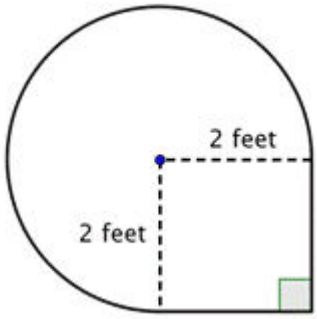
b) The triangle is an equilateral triangle with measurements of 10 cm.



3) A circle has a radius of 30 feet. Which of the following is closest to its area?
   a) 50 ft^2
   b) 100 ft^2
   c) 190 ft^2
   d) 705 ft^2
   e) 2,850 ft^2

4) We spoke about the proportionality of the relationship between circumference and the diameter. What could the reason be that a graph may not look exactly proportional? ***(hint: See Unit 3 Lesson 3 Activity 3.2 for guidance).***

5) Find the perimeter and area of the figure.



6) Alice has 2 flying discs. One is 12 centimeters in diameter, the other is 24 centimeters in diameter. Giving an answer in both pi notation and rounded to the nearest tenth, what is the difference in square centimeters between the areas of the two discs?

7) A manufacturing company is producing dinner plates with a radius of 6 inches. They plan to put a gold edge on each plate.
    a) Determine how much gold edging they will need for each plate.

b) How much gold edging will they need for a box of 24 plates?

c) In total, how much would it cost the company to put the gold edging around the plates if it costs $3.25 per 100 inches of gold edging?

8) Pictured is a car tire. How many revolutions does the car tire need to make to travel 13,200 inches?

9) You are cutting circles out of pieces of 8.5 x 11-inch construction paper that have a diameter of 2.5 inches. You have 20 pieces of construction paper. How many circles can you make?