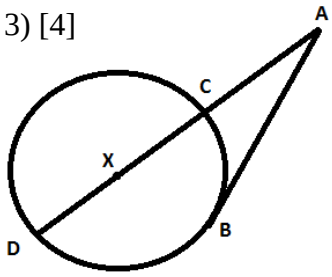
Name: _____ Geometry
Date: _____ Review
Class: _____ Graded Homework 29

Show all of your work for every problem. The numbers in the brackets are the points that each problem is worth. Multiple Choice Problems are worth 3.
NO WORK = ZERO CREDIT

1) [3] Segment PM has points P(5, 7) and M(-2, -1). Find the equation of a line that is perpendicular to segment PM and passes through (-1, -4).

2) [3] A figure is composed of a rectangular prism with dimensions 8ft long, 6ft wide, and 10ft tall. A pyramid is placed inside of this prism, its dimensions are exactly the same – 8ft long, 6ft wide, 10ft tall. You are filling the space inside the prism, but outside the pyramid. If you are using a cone with dimensions 6ft tall and diameter of 11.5ft and you use exactly one cone full, what percentage the empty space in the prism is now full?

3) [4]



In the following diagram $\overline{AB}$ *is a tangent and X is the* center of the circle. If AC = x – 2, AB = x + 8, and CD = 8x – 3, find XD

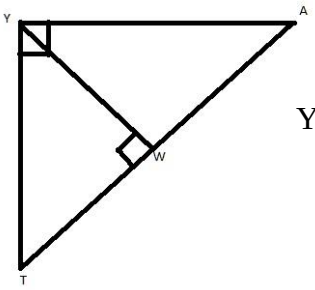
4) [3] If a tree casts a shadow the is 52ft long with an angle of depression of 42° what is the height of the tree to the nearest hundredth of a foot?

5) [3] If a triangle has points A(-6, 2), B(-2, 6), and C(1, 1) what would its area be after a dilation of scale factor 2 centered at (1, 1)?

6) [3] In right triangle ABC, <B is a right angle. If the sides are in the ratio of BC:AB:AC = 3:4:5 which of the following is not true?

1) $sinA = \frac{3}{5}$ 2) $tanA = \frac{4}{3}$

3) $sinC = \frac{4}{5}$ 4) $cosB = \frac{3}{5}$

7) [3] 

YT = 10 and YA = 14, find YW

8) [3] Construct a regular octagon that is inscribed in the following circle.