

Name: _____
 Date: _____
 Class: _____

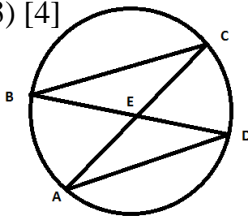
Geometry
 Review
 Graded Homework 32

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] In square ABDE, B(-3, 4) and E(0, -1). Find the equation of the other diagonal of this square.

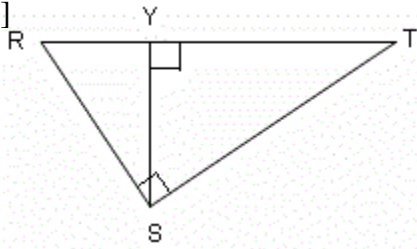
2) [3] Two trapezoids are similar. The smallest base of the smaller trapezoid is 12in and it has an area of 72 square inches. The smallest base of the larger trapezoid is 16in. Find the area of the larger trapezoid.

3) [4]



In $\odot E$, $BC = 12in$, $m\angle CBE = 4x + 11$, and $m\angle DAE = 6x - 4$. Find the area of the circle to the nearest hundredth.

4) [3]

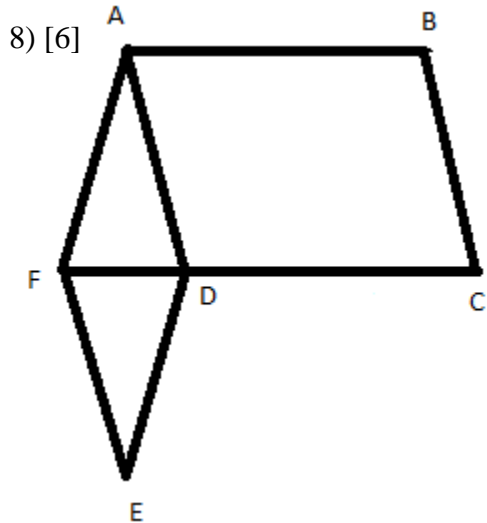
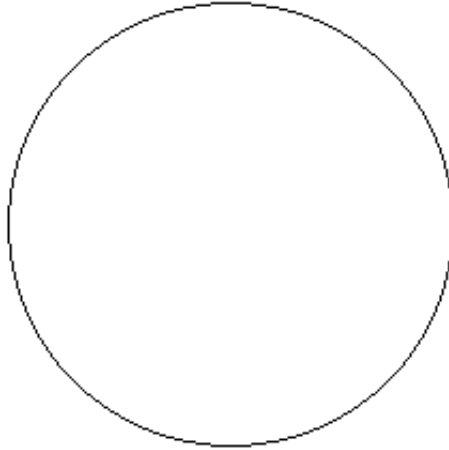


In $\triangle SYT$, $SY:YT:TS = 5:12:13$. Area $\triangle SYT$ is 2695 square feet. Find RS to the nearest tenth.

5) [4] A water tank is made in the shape of a cylinder with a cone attached to each base. This is then cut in half lengthwise (through the middle of the cones and through the middle of the cylinder). The cone's slant height makes an angle of 32 degrees with the height. The slant height is 16ft. The cylinder is 4.5 times as tall as the diameter of the cone. How much water is in the tank when it is 75% full?

6) [3] In right triangle TYU, $\angle Y$ is a right angle. $TU = 6$, $YU = 3$. Find the value of $\cos(T)$ in simplest radical form.

7) [3] Construct a regular 12 sided polygon inscribed in this circle.



Given: $ABCD$ is a parallelogram
 $ABCF$ is an isosceles trapezoid
 \overline{FC} bisects $\angle AFE$
 $\overline{FE} \cong \overline{BC}$
Prove: $ADEF$ is a rhombus