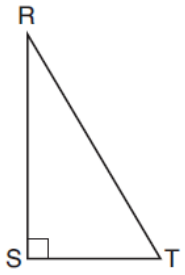
Name: _____ Geometry
Date: _____ Review
Class: _____ Graded Homework 33

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) [4] In rectangle ABCD, A(-2, 4) and C(3, -1). Find the equation of $\overline{BD}$ if the slope of this diagonal must be $\frac{1}{7}$. What are the coordinates of B (and how do you know)?

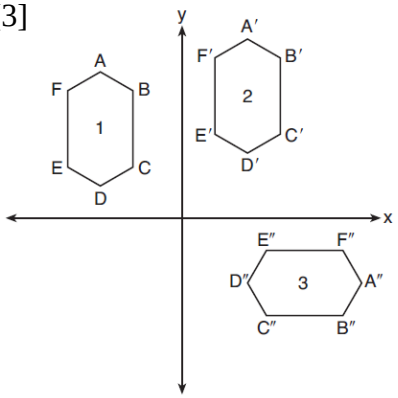
2) [3] If a triangle has points A(-3, -2), B(-5, -5), and C(-1, -7) what would the perimeter be in simplest radical form?

3) [3]



If this shape was rotated so that segment RS rotated around point R, what two three dimensional shapes could be used to describe what is created?

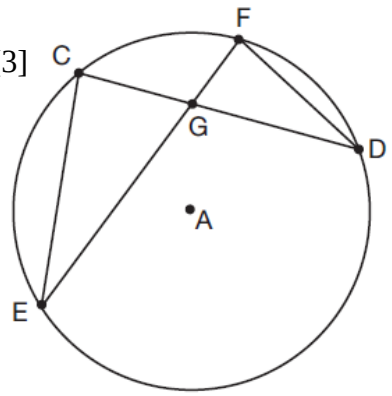
4) [3]



What would be a sequence of transformations that would map figure 3 onto figure 1?

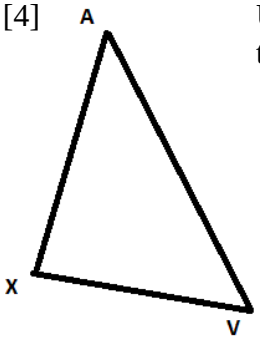
5) [4] A man is standing on top of a cliff looking up at a tree (the tree is growing from below the cliff). He knows the tree is 50ft away from the cliff. He also knows that there is an angle of depression of 15° from the top of the tree to the edge of the cliff. Finally, he measures the angle of depression from the edge of the cliff to the bottom of the tree to be 62°. How tall is the tree to the nearest tenth of a foot?

6) [3]



m<FDG = 2x, m<FGD = 6x + 13 and m<ECG = 8x – 7. Find $\widehat{CF}$.

7) [4]



Using line AB create a parallelogram that has twice the area as triangle AVX.

8) [6] Quadrilateral ABCD has points A(-4, -2), B(-2, 1), C(-1, -5), and D(-3, -8). Is ABCD a square? Find (and explain) how to move point D so that ABCD is a trapezoid with the following ratio – AB:CD = 1:3.