

Name: _____
Date: _____
Class: _____

Geometry
Review
Graded Homework 34

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

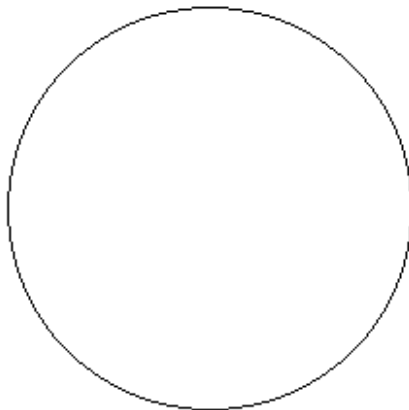
1) [4] If square ABCD has points A(6, 2) and C(7, -5) what must be the location of points B and D (one idea is to use the diagonal equation to find these)? Explain how you know this is a square.

2) [3] $\triangle ABC$ has points A(2,1), B(4,4), C(5,0) and $\triangle A'B'C'$ has points A'(2,4), B'(6,10) and C'(8,2). The image is obtained with a dilation centered at (2, -2). What is the scale factor for this dilation and how do you know?

3) [3] \overline{QR} has point Q(-3, -2) and point R(9,6). Find point S so that QS:SR = 3:7

4) [3] Find the equation of a line that passes through (1, 3) and is parallel to the line $14 = 3x - 7y$.

5) [3]



Construct an inscribed isosceles right triangle which has a diameter as the hypotenuse.

6) [3] If $\triangle ABC$ is a right triangle with $\angle C$ as the right angle and the triangle is also isosceles, which of the following is not true and explain?

1) $\sin A = \sin B$

2) $\cos A = \cos B$

3) $\tan A = \tan B$

4) $\tan A = \sin B$

7) [3] In $\triangle ABC$ and $\triangle DEF$, $AB = 12.5$, $BC = 15.75$, $EF = 40.95$, $DE = 30$, and $m\angle B = m\angle E$. Would these two triangles be similar? Explain.

8) [5] Two equilateral triangles are related in the following manner: the length of a side of the larger triangle is 3 less than twice the length of the side of the smaller triangle and the perimeter of the larger triangle is 12 more than the perimeter of the smaller triangle. What is the area of the larger triangle?