

Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Class: \_\_\_\_\_

Geometry  
Review  
Graded Homework 17

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) Solve using complete the square:  $3x^2 - 10x - 15 = 0$

1)  $\frac{10}{3} \pm \sqrt{\frac{280}{36}}$

2)  $\frac{10}{6} \pm \sqrt{\frac{280}{36}}$

3)  $\pm \frac{10}{3} \sqrt{\frac{280}{36}}$

4)  $\pm \frac{10}{6} \sqrt{\frac{280}{36}}$

2) If two verticle angles are represented by  $7x + 1$  and  $x^2 - x - 19$  Find x.

1) 10

2) -2

3) -2 or 10

4) 2

3)

If the 3 angles of a triangle are  $m\angle A = 10x - 3$ ,  $m\angle B = 8x - 3$ , and  $m\angle C = 6x + 5$ , which side of this triangle is the longest?

1)  $\overline{AB}$

2)  $\overline{AC}$

3)  $\overline{BC}$

4) cannot be determined

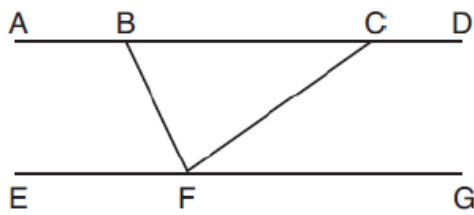
4) [4]

If an isosceles triangle has two legs represented by  $2x - 5$  and  $4x - 27$ , find a range for the length of the base of this isosceles triangle if the base must be the shortest side.

5) [3]

Write the equation of a line that is perpendicular to a 2<sup>nd</sup> line which passes through  $(-4, 5)$  and  $(-1, 1)$ . The new line passes through  $(-2, -2)$ .

6)



$m\angle CBF = 6x - 20$  and  $m\angle BFE = 4x + 6$   
what value of  $x$  would result in  $\overline{AD} \parallel \overline{EG}$  ?

- 1) 7
- 2) 13
- 3) 19.4
- 4) 20.6

7) [3]

If two sides of an equilateral triangle are represented by  $x^2 + 2x + 12$  and  $2x^2 - 8x - 12$  find the perimeter of this triangle.

8)

If you are standing on the edge of the roof of your house and looking down at a dog sleeping in the yard with an angle of depression of  $32^\circ$  find the distance (to the nearest tenth) the dog is from the base of the house if you are standing 18 feet off the ground.?

- 1) 9.5
- 2) 11.2
- 3) 28.8
- 4) 34.0