Study Guide #2

Lessons Covered: #5 Quadratic, #6 Algebraic Proofs, #7 Segment Addition Postulate,

#8 Constructing Segments

Name: _____ Date: _____ Period: _____

Complete the following proofs

1. If $4x - 5 = 2x + 11$ then $x = 8$

Statements	Reasons

2. If $58 = 6(x + 5) + 4$ then $x = 4$

Statements	Reasons

3. If $3(2x - 4) + 2 = 2(x + 7)$ then $x = 6$

Statements	Reasons

4. If $2x + 10 - 3x = 5x - 8$ then $x = 3$

Statements	Reasons

Use the quadratic formula to solve: _____

5. $4x^2 + 20x + 24 = 0$

6. $5x^2 - 8x + 3 = 0$

Use the segment addition postulate to find x.

7. B is between A and C. If AC = 45, AB = 2x + 5, and BC = 3x – 10, find x.

8. E is between D and F. If ED = 3x – 7, EF = 2x +5, and DF = 4x + 2, find x.

9. H is between G and J. If GJ = 7x + 10, HG = x + 18, and HJ = 3x +1, find x.

10. L is the midpoint of KM. If LM is 4x -3, KM = 10x – 20, find x.

Construct a segment with the length given

11. 3.4 cm

12. $2\frac{7}{16}$ inches

13. 4.85 cm

14. $1\frac{5}{8}$inches

Review Questions

Simplifying Radicals

Finding Midpoint/Endpoint

Calculating Distance