Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ HR: \_\_\_\_\_\_\_\_\_\_\_\_

Quadratics Practice

Directions: Solve Through Factoring.

1. x2 + 15x + 56 = 0 2. 81x2 – 4 = 0 3. 5x2 + x – 6 = 0

4. 18x2 + 12x - 6 = 0 5. 6x2 – 19x + 3 = 0 6. 49x2 - 81 = 0

7. C is between R and T. Find RT if RC = 2x + 7, CT = 28, and RT = 4x.

 Check Work HERE:

8. B is the midpoint of segment AC. AB = 5x and BC = 3x + 4. Find AB, BC, and AC.

 Check Work HERE:

9. N is between A and X. AN = x + 1, NX = x2, and AX = 21. Find x and the length of each segment.

 Check Work HERE:

10. A is between B and C. BA = x2, AC = 6x + 10, and BC = 17. Find x and the length of each segment.

 Check Work HERE:

11. Point M is the midpoint of segment AB. AM = 3x + 40 and MB = x2. Find x and AB.

 Check Work HERE:

12. L is between K and M. KL = x2 – 10, LM = 5x + 4, and KM = 2x2 – 42. Find x.

 Check Work HERE:

13. M is the midpoint of segment LN. If LM = 5x2 - 1 and MN = x2 – 11x +2 find the value of x, length of LM, MN, and LN.

 Check Work HERE:

Solutions:

1. {-8,-7} 2. {-2/9, 2/9} 3. {-6/5, 1} 4. {-1, 1/3} 5. { 1/6, 3} 6. {-9/7, 9/7}

7. x = 17.5, RT = 70.

8. x=2, AB=10, BC = 10, AC = 20.

9. x = 4, ~~x = -5 (not a solution),~~ AN = 5, NX = 16

10. x = 1~~, x =~~ ~~-~~ ~~7 (not a solution)~~ , BA = 1, AC = 16.

11. x = 8, x = -5, AB = 128 or AB = 50

12. x = 9, ~~x =~~ ~~-~~~~4(not a solution)~~

13. x = -3, x = ¼ (not a solution), LM = 44, MN = 44, LN = 88.