**Midpoint, Distance, Segment Addition and Angle Addition** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Math 2 Homework

1. Find the midpoint between (-1, 2) and (3, -6).
2. Find the value of p so that (-2, 2.5) is the midpoint between (p, 2) and (-1, 3).
3. Find the distance between A(-3, 7) and B(1, 4).
4. Find the distance between X(-2, -3) and Y(-4, 4).
5. B(0, 6) is the midpoint of AC. If A(8, 0) and BC = 3x – 8, find the value of x. Draw a picture to help.
6. Find SR if R is the midpoint of SU. S 6a + 4 R 2(5a – 4) U
7. Find the value of x if R is between Q and T, QR = 3x + 5, RT = 4x – 9, and QT = 17.
8. Find the coordinates of R if M(-4, 5) is the midpoint of RS and S has coordinates (0, -10)
9. In the following problems, suppose J is between H and K. Use the Segment Addition Postulate to solve for x. Then find the length of each segment.

a. HJ = 5x JK = 7x KH = 96

b. HJ = 2x + 5 JK = 3x - 7 KH = 18

c. HJ = 6x - 5 JK = 4x - 6 KH = 12916

1. Find n if WX bisects ∠VWY.
2. Given: BA⊥BD, *m*∠*CBD*=4*x*+52, *m*∠*ABC*=8*x*−10, Find *m*∠*CBD*.