

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

Show all work and simplify all answers before circling/boxing them. If you do the problem incorrectly, or don't show sufficient work, you will be asked to rewrite the problem for full credit.

**Due next class.** Students who turn assignments in late (or do not attempt a problem) forfeit their ability to rewrite those problems for credit.

1. Determine the maximum, minimum, mean, and median of  $-10, 25, 15, -30, 55, 61, -30, 45, 5$
2. Determine the maximum, minimum, mean, and median of  $-10, 20, 30, -20, 0, 10$
3. Create a set of three numbers that has a mean of 20 and a median of 18.
4. Consider the following relation:  $\{(0, 5), (-3, 4), (-2, -5), (7, -3), (0, 0)\}$ 
  - (a) Find the domain and range
  - (b) Plot the relation (i.e. graph the points)
5. Find the distance between these two points:  $(2, -2)$  and  $(5, 2)$
6. Find the distance between these two points:  $(-1, -6)$  and  $(-8, -5)$
7. Find the midpoint of the line segment connecting  $(1, 2)$  and  $(5, -3)$
8. Find the midpoint of the line segment connecting  $(-6, 7)$  and  $(9, -4)$
9. One endpoint of a line segment is  $(7, -4)$  and the midpoint is  $(8, 5)$ . What is the other endpoint of the line segment?
10. Find the center and radius of the circle:  $x^2 + y^2 = 20$
11. Find the center and radius of the circle:  $(x - 3)^2 + y^2 = 9$
12. Find the center and radius of the circle:  $x^2 + 6x + y^2 - 2y = -1$
13. Find the center and radius of the circle:  $x^2 - 4x + y^2 + 8y + 9 = 0$