Algebra Connections to Geometry Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Non Calculator Review

**Algebraically**: Determine the points of intersection for the given circle and line.

1.

2.

3.

**Graphically**: Determine the points of intersection for the given circle and line.

4.

5.

6.

**Converting**: Change the form the equation of a circle to standard or the general form.

7.

8.

9.

10.

**Equations of a Line**: Write an equation of a line that is parallel and perpendicular given the two points.

11. Through: (0, 5) and (-5, 5)

12. Through: (2, -5) and (4, -4)

13. Through (-3, 1) and (0, -3)

**Distance and Midpoint:** Find the distance and midpoint between two points

14. (-5, 2) and (-2, 1)

15. (-2, 4) and (4,5)

**Midpoint**: Find the other endpoint even the midpoint and one endpoint.

16. Endpoint: (7, 3) Midpoint: (9, 8)

17. Endpoint: (-2, 9) Midpoint: (-6, 8)

**Segment Partition**: Find the partition given two points and a ratio.

18. Find the coordinates of the point R that lies along the directed segment from

J (10, -5) to K (-2, -3) and partitions the segment in the ratio of 2 to 7.

19. Find the coordinates of the point P that lies along the directed segment from

M (-5, -2) to N (-5, 8) and partitions the segment in the ratio of 4 to 6.

20. Find the coordinates of point P that is of the way along the directed line segment from

C (6, -5) to D (-3, 4).