Mat 105

Quiz 6 Practice

Name: _____

Please show all your work to ensure full credit.

- 1. Solve the following equations. If there are extraneous solutions, so state.
 - a. $\sqrt{x} + 1 = \sqrt{x + 7}$

b.
$$\frac{3}{x-2} - \frac{5}{x+2} = 5$$

c.
$$\frac{5}{x^2 - 7x + 6} = 3 + \frac{1}{x - 6}$$

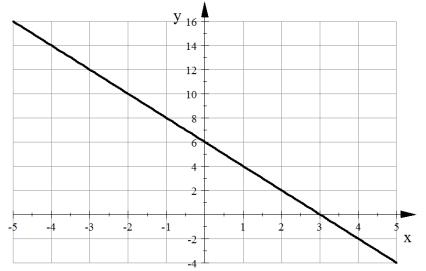
d.
$$\frac{2x^2 + 2x - 10}{x^2 - 9} - \frac{x - 2}{x - 3} = \frac{-2}{x + 3}$$

2. Solve the following inequalities. Write your answer in graphical and interval notations.

a.
$$x^2 - 3x > 10$$

b.
$$\frac{3}{x-2} \le 5$$

- 3. Find the distance and midpoint between the points P(-2,1) and Q(3,5).
- 4. Find the equation of the line below.



5. Find the equation of the line passing through the point (-1,1) and parallel to the line 2x = -3y + 6.