Name: _____

College Algebra: Review (Test 1)

1. Find all solutions of the following equation.

$$|-13x-14|+10=-4$$

2. Find an equation for the line passing through the points $(4,-7)$ and $(-2,-2)$.

3. Convert the standard form linear equation

$$-y+2x=-7$$

to slope-intercept form.

4. Find all solutions of the following equation.

$$\frac{x}{x-7} + 7 = \frac{7}{x-7}$$

5. Find all solutions of the following equation.

$$\frac{2}{5} + \frac{1}{x-4} = 1$$

6. Find all solutions of the following equation.

$$x^3 + 3x^2 - 18x = 0$$

7. Find all solutions of the following equation.

$$2x^4 - 11x^2 + 5 = 0$$

8. Find an equation for the circle centered at $(7, -1)$ and having radius 4.

9. Find the midpoint of the points $(6, 3)$ and $(-5, 7)$.

10. Find all solutions of the following equation.

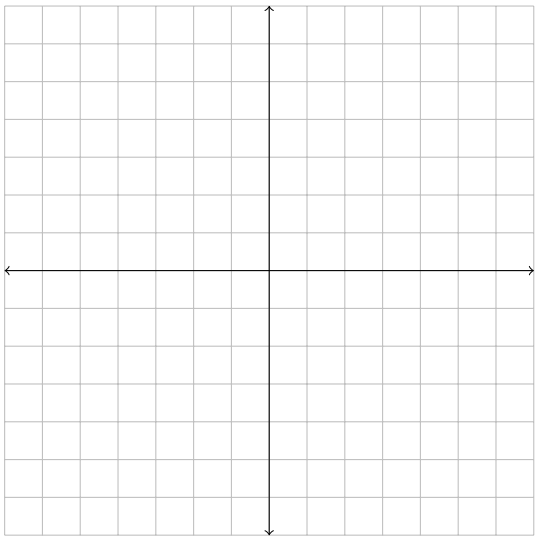
$$x^2 - 12x + 27 = 0$$

11. Find an equation for the line passing through the point $(5, -2)$ and having slope -2/3.

12. Find all solutions of the following equation.

$$\frac{x}{x+3} + 3 = \frac{6}{x+3}$$

13. Plot the graph of the linear equation $y = -2x + 3$ on the plane below.



14. Find the distance between the points $(1, 5)$ and $(3, 4)$.

15. Find all solutions of the following equation.

$$|2x - 6| + 11 = 21$$

16. Find an equation in slope-intercept form for the line passing through the point $(3, 4)$ and parallel to $y = \frac{1}{2}x + 3$.

17. Find all solutions of the following equation.

$$x^2 - 8x + 15 = 0$$

18. Find all solutions of the following equation.

$$-8 - |5x - 9| = |5x - 9| - 8$$

19. Find all solutions of the following equation.

$$|x^2 - x - 28| = 2$$