

You hav 50 min. Answer each non-graph question neatly on the line provided.

Name: _____

1. (5 points) Find all real solutions of $\frac{-10x}{x^2+25} = 1$.

1. _____

2. (5 points) Find the distance between $(3, -2)$ and $(-4, -5)$.

2. _____

3. (5 points) Find an equation of the line passing through the points $(-1, -2)$ and $(4, 3)$.

3. _____

4. (5 points) Solve the inequality $\frac{2}{5}x + 1 < \frac{1}{5} - 2x$. Express your solution in interval notation.

5. (5 points) Find all real solutions x of $x^5 = 5x^3$.

5. _____

6. (5 points) Find all real solutions w of $w^2 + 13w = 30$.

6. _____

7. (5 points) Find the center and radius of the circle given by the equation $x^2 + y^2 + 8x + 5 = 0$.

7. _____

8. (5 points) Make a table of values and sketch the graph of $y = 2x^2 - 3$.

9. (5 points) Solve $4(y - \frac{1}{2}) - y = 6(5 - y)$ for y .

9. _____

10. (5 points) Find the x - and y - intercepts of the graph of $y = x^2 - 5x + 6$.

10. _____

11. (5 points) Find an equation of the circle with center $(-1, 5)$ and passes through the point $(-4, -6)$.

11. _____

12. (5 points) Find an equation of the line with y -intercept 6 and parallel to the line $2x + 3y + 4 = 0$.

12. _____