

## Algebra Mid-Term Review Sheet 2

<== Covering chapters 5, 6 and 9 ==>

Work together! Please work only in pencil, showing all your work. If you sit face-to-face and talk about the work while doing it, you and a partner will get better at the math. Also  your answers.

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1. Write in slope-intercept form the equation of the line.

$$m = 5, b = -4$$

2. Write in slope-intercept form the equation of a line that is parallel to the line  $y = 2x + (-4)$  and passes through the point  $(4, 0)$ .

3. Write the equation of the line in slope-intercept form that passes through the given points.  
 $(7, -1)$  and  $(2, 9)$

4. Write the standard form of the equation of the line with slope 4 passing through the point  $(-4, 2)$ .

5. Solve and graph the inequality.  
 $5x + 2 < 3(x - 1)$

Solve the inequality.

6.  $2x + 4 > 1 - 2x$

Solve the inequality.

7.  $x + 2 \leq 4$  and  $-x < 5$

8.  $3x + 1 > 16$  or  $2x + 1 < 15$

9. Solve the absolute-value inequality.  
 $|2x + 1| - 2 < 1$

10. Evaluate the expression.  
 $-\sqrt{36}$

11. Evaluate  $\sqrt{b^2 - 4ac}$  for  $a = 3$ ,  $b = 10$ , and  $c = 4$ .

12. Simplify the expression.  
 $\sqrt{12}$

13. Solve the equation or write *no real solution*.  
 $4x^2 - 9 = 0$

14. Solve the equation. Round the results to the nearest hundredth.  
 $7x^2 - 4 = 100$