Algebra 1 Midterm Review

White 1: Wednesday, December 14th White 3: Friday, December 16th

Name:	Date:	Block:
1) Solve the equation.	2) Solve the equation.	
5(r-1) = 2(r-4) - 6	2y + 3 = 3(y + 7)	
3) Paula always withdraws 20 dollars more than she needs f	rom the bank.	
a) Write an expression for the amount of money Paula withdraws if she needs <i>d</i> dollars.		
b) Find the amount of money Paula withdraws if she needs 20, 60, and 75 dollars.		
4) Solve the inequality. Then explain how the solution to an inequality is different than an equation.		
10-2(3x+4) < 11		
5) Solve the inequality and graph the solutions		2
5) Solve the mequality and graph the solutions.	6) Graph the line with a slope =	$\frac{2}{3}$; and y-intercept = 2.
5 > 12a - (3 - 4a)	y y	
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13) Write each equation in slope-intercept form.	14) Evaluate each function for the given input values.	
-2y = 3x - 4	For $f(x) = 5x + 1$, find $f(x)$ when $x = 2$ and when $x = 3$.	
15) Tell whether each function is linear. Explain.	16) Write the equation that describes the line in slope- intercept form.	
a) $2y = -3x^2$ b) $y = 4x - 7$	slope = -4 ; (1, -3) is on the line	
17) The table shows Gabe's height on his birthday for five years.		
Age 9 11 12 13 15 Height (in.) 58 59.5 61.5 65 69		
a) Find the rate of change during each time interval.		
b) When did the greatest rate of change occur?		
18) Graph the system.	19) Solve the system by substitution.	
$\begin{cases} y < 2x + 4 \\ y > x - 1 \end{cases}$	$\begin{cases} y=3x+1\\ y=5x-3 \end{cases}$	

20) Graph the system.	
$\begin{cases} y \leq \frac{1}{2}x + 1\\ x + y < 3 \end{cases}$	
21) Solve the system by elimination.	22) Add or subtract.
$\int 3x + y = -26$	$(11b^2 + 3b - 1) - (2b^2 + 2b + 8)$
$\lfloor 2x - y = -19 \rfloor$	
23) Simplify.	24) Simplify.
$\underline{m^3 n^{-4}}$	$\sqrt[3]{v^9 z^{12}}$
ρ^0	
25a) Camuia huilding a agusus tabla fay a kitaban. In his	
initial sketch, each side measured <i>x</i> feet. After rearranging	of $x - 1$ feet. Write a polynomial to express the area of the
some furniture, he realized he would have to add one foot to the length and remove one foot from the width and	bedroom. Then calculate the area if $x = 10$.
have a rectangular table instead. Write a polynomial to	
represent the area of the rectangular table.	