

Name: _____

Key June 3 Key

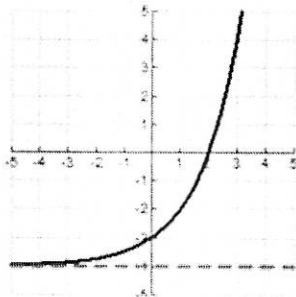
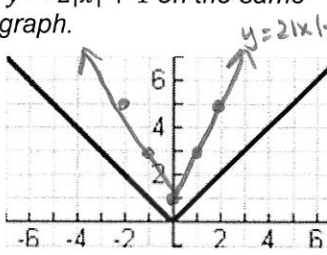
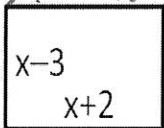
CC Algebra Review Homework

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Monday	Tuesday	Wednesday	Thursday																
<p>Tim earns \$120 plus \$30 for each lawn he mows.</p> <p>a) Write an inequality to represent how many lawns he needs to mow to make at least \$310.</p> $30x + 120 \geq 310$ <p>b) Solve the inequality</p> $\begin{array}{r} 30x + 120 \geq 310 \\ -120 \quad -120 \\ \hline 30x \geq 190 \\ \frac{30x}{30} \geq \frac{190}{30} \\ x \geq 6.\bar{3} \\ 7 \text{ lawns} \end{array}$	<p>The function $f(x) = 8.25x$ models the amount of money that Jim earns for each hour of work.</p> <ol style="list-style-type: none"> What does the value "x" stand for? hours worked What is the meaning of the coefficient of x? \$8.25 per hour What does the lack of a constant tell us? no base pay 	<p>Rental Store A charges \$10 to rent a power tool plus \$2 per hour. Store B charges by the function $f(x) = 15 + 1.5x$. Which store has the largest charge per hour?</p> $A: 2x + 10$ $B: 1.5x + 15$ <p style="text-align: center;">(A)</p>	<p>A doctor develops the model $y = 36.57x + 4$ for the number of words a toddler can speak (x) versus the months that have passed since they started speaking (y). Interpret what the 36.57 and the 4 means in the context of the problem.</p>																
<p>Factor Completely:</p> $h^4 - 81$ $(h^2 - 9)(h^2 + 9)$ $(h+3)(h-3)(h^2 + 9)$	<p>Solve the equation $2x - 9y = -27$ for y.</p> $\begin{array}{r} -2x \quad -2x \\ \hline -9y = -2x - 27 \\ \frac{-9y}{-9} = \frac{-2x - 27}{-9} \\ y = \frac{2}{9}x + 3 \end{array}$	<p>Find $f(-3)$</p> <p>$f(-3) = 4$</p>	<p>Is this function linear or exponential?</p> <table border="1" data-bbox="1206 1115 1523 1417"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr><td>-3</td><td>6</td></tr> <tr><td>-2</td><td>5</td></tr> <tr><td>-1</td><td>4</td></tr> <tr><td>0</td><td>3</td></tr> <tr><td>1</td><td>2</td></tr> <tr><td>2</td><td>1</td></tr> <tr><td>3</td><td>0</td></tr> </tbody> </table> <p>Linear $m = -1$</p>	x	y	-3	6	-2	5	-1	4	0	3	1	2	2	1	3	0
x	y																		
-3	6																		
-2	5																		
-1	4																		
0	3																		
1	2																		
2	1																		
3	0																		
<p>Find the value of c that completes the square.</p> $x^2 - 18x + c$ $\left(-\frac{18}{2}\right)^2 = (-9)^2 = 81$ <p>$c = 81$</p>	<p>Factor the problem to the left</p> $x^2 - 18x + 81$ $(x-9)(x-9)$ $(x-9)^2$	<p>Write the problem to the left in the form of $(x \pm __)^2$</p> $(x-9)^2$	<p>Write the function in vertex form $(x \pm __)^2 \pm c$ by completing the square</p> $x^2 + 3x + 1 = 0$ $x^2 + 3x = -1$ $x^2 + 3x + \frac{9}{4} = -1 + \frac{9}{4}$ $\sqrt{\left(x + \frac{3}{2}\right)^2} = \pm \sqrt{\frac{5}{4}}$ $x + \frac{3}{2} = \pm \frac{\sqrt{5}}{2}$ $x = -\frac{3}{2} \pm \frac{\sqrt{5}}{2}$																

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<p>Is this function growing linearly or exponentially?</p>  <p>expon.</p>	<p>Use the quadratic formula to solve</p> $3x^2 - 4x - 1 = 0$ $x = \frac{4 \pm \sqrt{(-4)^2 - 4(3)(-1)}}{2(3)}$ $x = \frac{4 \pm \sqrt{28}}{6}$ $x = \frac{4 \pm 2\sqrt{7}}{6}$ $x = \frac{2 \pm \sqrt{7}}{3}$	<p>Below is a graph of $y = x$. Graph the function $y = 2 x + 1$ on the same graph.</p> 	<p>Use the quadratic formula to solve</p> $7x = x^2 + 10$ $x^2 - 7x + 10 = 0$ $x = \frac{7 \pm \sqrt{(-7)^2 - 4(1)(10)}}{2(1)}$ $x = \frac{7 \pm \sqrt{9}}{2}$ $x = \frac{7 \pm 3}{2}$ $\frac{7+3}{2} = 5$ $\frac{7-3}{2} = 2$
<p>Use the functions $f(x) = 5x - 3$ $g(x) = 2x - 4$ for the following:</p> <p>$f(x) + g(x)$</p> $\begin{array}{r} 5x - 3 \\ + 2x - 4 \\ \hline 7x - 7 \end{array}$ <p>$g(x) - f(x)$</p> $\begin{array}{r} (2x - 4) - (5x - 3) \\ \hline 2x - 4 \\ - 5x + 3 \\ \hline -3x - 1 \end{array}$	<p>Use the functions $f(x) = 5x - 3$ $g(x) = 2x - 4$ for the following:</p> <p>$f(x)$ subtracted from $g(x)$</p> $\begin{array}{r} (2x - 4) - (5x - 3) \\ \hline 2x - 4 \\ - 5x + 3 \\ \hline -3x - 1 \end{array}$	<p>Use the functions $f(x) = 5x - 3$ $g(x) = 2x - 4$ for the following:</p> <p>$f(x) \cdot g(x)$</p> $\begin{array}{r} (5x - 3)(2x - 4) \\ \hline 10x^2 - 20x \\ - 6x + 12 \\ \hline 10x^2 - 26x + 12 \end{array}$	<p>Find the area of the rectangle</p> <p>$A = l \cdot w$</p>  $\begin{array}{r} (x-3)(x+2) \\ \hline x^2 + 2x \\ - 3x - 6 \\ \hline x^2 - x - 6 \end{array}$

My Progress

MONDAY	TUESDAY	WEDNESDAY	THURSDAY
# of questions _____	# of questions _____	# of questions _____	# of questions _____
# correct _____	# correct _____	# correct _____	# correct _____
I need more help with... _____	I need more help with... _____	I need more help with... _____	I need more help with... _____
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