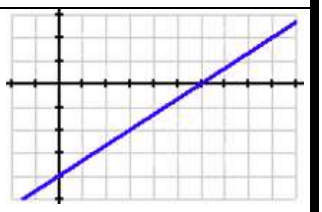
Answer Key – Weekly Math Review – Q1:1

Monday	Tuesday	Wednesday	Thursday
Simplify using your order of operations: $\left(\frac{6}{2}\right)^2 - \frac{15 \times 2}{1+5}$ 4	Simplify using your order of operations: $15 \div \left(2^2 - (2-1)\right) - 12 \div 4$ 2	Simplify using your order of operations: $(5 \times 3) \div (4 - 3 + (3-1)^2)$ 3	Simplify using your order of operations: $(6 - 2^2) \times \frac{(6+4) \times 2}{5}$ 8
Solve the equation for x: $3(x+5) = x + 21$ $x = 3$	Solve the equation for x: $-2(-4-6x) = -10 + 3x$ $x = -2$	Solve the equation for x: $8 - 2(x-5) = x - 3$ $x = 7$	Solve the equation for x: $3(x-5) = x + 21$ $x = 18$
Solve the equation for *y*: $3x - 7y = -28$ $y = \frac{3}{7}x + 4$	Solve the equation for *y*: $y - 4 = \frac{1}{2}(x-8)$ $y = \frac{1}{2}x$	Solve the equation for *y*: $12x - 18y = 9$ $y = \frac{2}{3}x - \frac{1}{2}$	Solve the equation for *y*: $y - 5 = \frac{3}{4}(x-12)$ $y = \frac{3}{4}x - 4$
Solve the system by the substitution method. $8x - 3y = -22$ $y = 5x + 19$ $(-5,-6)$	Solve the system by the elimination method. $-5x - 2y = 2$ $6x - 2y = 24$ $(2,-6)$	Solve the system by the substitution method. $-4x + 3y = -7$ $y = 2x - 5$ $(4,3)$	Solve the system by the elimination method. $6x + 2y = -16$ $-x - 3y = -16$ $(-5,7)$
Factor Completely: $x^2 - 14x + 45 =$ $(x-9)(x-5)$ $n^2 + 4n - 32 =$ $(n+8)(n-4)$	Factor Completely: $k^2 - 2k - 48 =$ $(k+6)(k-8)$ $3n^2 - 21n + 18 =$ $3(n-1)(n-6)$	Factor Completely: $x^2 + 14x + 40 =$ $(x+10)(x+4)$ $n^2 - n - 20 =$ $(n-5)(n+4)$	Factor Completely: $n^2 - 17n + 72 =$ $(n-9)(n-8)$ $5x^2 - 30x - 35 =$ $5(x+1)(x-7)$
Find the slope between the following points: $(-5,2)$, and $(3,9)$ $\frac{7}{8}$	A school is selling T-shirts to students. It costs $35 to create the design and $10 to print each shirt. Write an equation in y = mx + b that models this. $y = 10x + 35$	Select the best model for the graph: A) A bucket collected water from a leak at a rate of 1.5 inches per hour B) A diver came up for air at a rate of 2 feet every 3 seconds. 	
Identify each number as real or complex: $5i$ complex $(17-8)$ real $\sqrt{53}$ real	Simplify the radicals below: $\sqrt{-36} = 6i$ $\sqrt{-40} = 2i\sqrt{10}$ $\sqrt{-1}^2 = -1$	Identify the conjugate: $17 - 4i$ $17 + 4i$ $10 + i$ $10 - i$	Simplify each expression: $i^{13} = i$ $i^5 = i$ $i^{12} = 1$ $i^{22} = -1$
Identify the Real part and Imaginary part of each number below: $8 - 7i$ Real= 8 Imaginary= -7 $19i$ Real = 0 Imaginary= 19	Simplify each expression: $i = i$ $i^2 = -1$ $i^3 = -i$ $i^4 = 1$	Identify each number as real or complex: i complex $(1-6i)$ complex $\sqrt{-49}$ complex	Simplify the radicals below: $\sqrt{-32} = 4i\sqrt{2}$ $\sqrt{98} = 7\sqrt{2}$