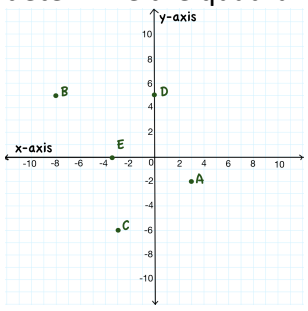
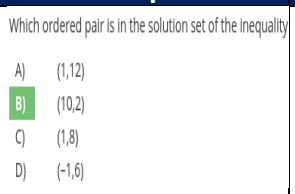
E A G L E A C A D E M Y

Algebra 1 Essential Skills for the Scholar

Standard	Computation Sample	Constructive Response Sample	Resources & How To Videos
-Plotting and reading on a coordinate plane	Plot the follow points and label a) (5,2) b) (-2, 4) c) (3, 0) d) (0, -2)	Write the coordinates that represent each letter and determine the quadrants 	Khan Academy (set up a classroom) Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill https://www.youtube.com/watch?v=9Uc62CuQjc4
-Classifications of numbers	Square root on 12 falls into which classification of number?	Is the square root of 49 rational or irrational, explain why?	Khan Academy (set up a classroom) Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill https://www.youtube.com/watch?v=vbPUS-0Wbv4
-Translating expressions (word problems) between verbal and algebraic forms	Jill sold half of her comic books and then bought sixteen more. She now has 36. With how many did she begin? a) X = 20 b) X = 40 c) X = 10 d) X = 25	You bought a magazine for $5 and four erasers. You spent a total of $25. How much did each eraser cost?	Khan Academy Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill https://www.youtube.com/watch?v=KmuWR_LriQU

Standard	Computation Sample	Constructive Response Sample	Resources & How To Videos
-Translating inequalities (word problems) between verbal and algebraic forms		James' salary is larger than 6 times susan's salary with an additional $200 dollars added on. Write the inequality that represents James' earnings	Khan Academy (set up a classroom) Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill
-Properties of numbers	Which property of numbers was used in the following situation? 5(2x - 4) = 10x - 20	How would using the commutative property of multiplication aid in solving the following problem? 125 x 37 x 4	Khan Academy Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill https://www.youtube.com/watch?v=-v6zc3JlsoY Distributive Property https://www.youtube.com/watch?v=v-6MShC82ow
--solve two step equations with all rational numbers (fractions and decimals)	4x - 3 = -23 a) X = -5 b) X = 5 c) X = -6.5 d) X = 6.5	x/4 - 10 = -6	Khan Academy Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill Sequence Videos 1-Step (order of operations) https://www.youtube.com/watch?v=l3XzepN03KQ&list=PLn2xrg_8MPfVFA1XMNpZc4P1FvqhByWQt&index=2 2-Step https://www.youtube.com/watch?v=LDIiYKYvvdA
-solve two step inequalities with all rational numbers (fractions and decimals)	$\frac{1+m}{9} \geq 1$ a) $m \geq 9$ b) $m \geq 8$ c) $m \leq 9$ d) $m \leq 8$	$-2+\frac{x}{2} > 6$	Khan Academy Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill Adding and Subtracting https://www.youtube.com/watch?v=smX2wkIUPvQ Multiplication and Division https://www.youtube.com/watch?v=QLMlYoXz2Zg Multiplying and Dividing with negative numbers https://www.youtube.com/watch?v=CiLokLAlYbY

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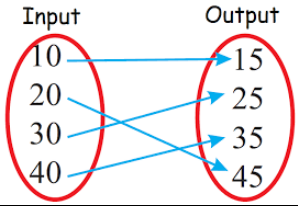
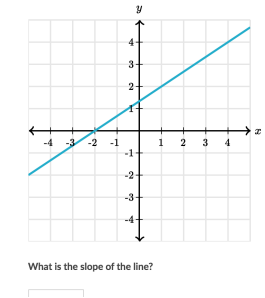
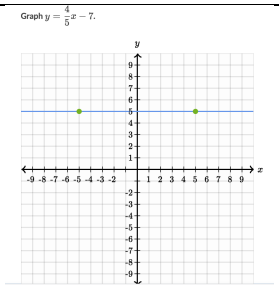
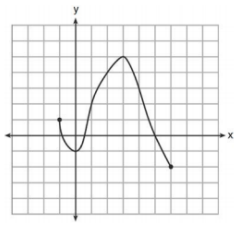
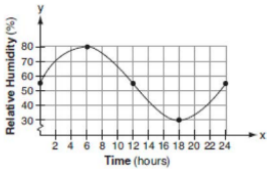
-solving equations with variables on both sides	8(4k – 4) = –5k – 32 a) K = -28/37 b) K = 0 c) K = -2 d) K = -28/27	r + 11 + 8r = 29	Khan Academy Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill https://www.youtube.com/watch?v=fDMxOiS5g7k
-intro to basic relation and functions	If f(x) = 4(2x - 3), then what is f(5)?	Is the following a functions, explain why or why not? 	Khan Academy Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill https://www.youtube.com/watch?v=52tpYl2tTqk
-determine slope (rate of change) in all forms		What is the slope of a line that passes through the points (-2,5) and (-7,2)?	Khan Academy Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill https://youtu.be/pGsicLglzY8 https://www.khanacademy.org/math/algebra-basics/alg-basics-graphing-lines-and-slope/alg-basics-slope/v/slope-and-rate-of-change Basics Linear https://www.youtube.com/watch?v=MXV65i9g1Xg
-graphing linear function (y=mx+b, slope intercept form)		NA	Khan Academy Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill https://www.youtube.com/watch?v=rgvysb9emcQ https://www.youtube.com/watch?v=MXV65i9g1Xg

Standard	Computation Sample	Constructive Response Sample	Resources & How To Videos
-introduction to domain and range on a graph	What is the domain of the function shown below  1) $-1 \le x \le 6$ 2) $-1 \le y \le 6$ 3) $-2 \le x \le 5$ 4) $-2 \le y \le 5$	A meteorologist drew the accompanying graph tc show the changes in relative humidity during a 24-hour period in New York City.  What is the range of this graph?	Khan Academy Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill You tube video **https://youtu.be/52tpYl2tTqk**
-polynomial vocabulary and operations	Determine the degree and amount of terms in the following? $2x^3 - 5x^2 + x + 3$	What is difference of 2y - 5x and -2x + 6y?	Khan Academy Delta Math Desmo Math antics Mathbitsnotebook You tube video specific to skill Polynomials https://www.youtube.com/watch?v=ffLLmV4mZwU Simplifying Polynomials (combining like terms) https://www.youtube.com/watch?v=DKC74YKJpNY