Clearview Regional High School District
2017 Summer Assignment Coversheet

Course:	Honors Algebra 1
Teacher(s):	Miller, Wescott, Dolan, Catts
Due Date:	September 8, 2017 (checked for completion only)
Purpose of Assignment:	To assess the students understanding of concepts necessary for Honors Algebra I.
Description of Assignment:	Students will solve problems involving fractions, integers, expressions, equations, inequalities and graphs. All problems are to be solved without the use of a calculator.
New Jersey Student Learning Standards (Content) covered:	The Number System MA.7.7.NS.A.1, MA.7.7.NS.A.2, MA.7.7.NS.A.3
	Expressions and Equations MA.7.7.EE.A.1, MA.7.7.EE.A.2, MA.7.7.EE.A.3, MA.7.7.EE.A.4
	Ratios and Proportional Relationships MA.7.7.RP.A.2, MA.7.7.RP.A.3
Grading/Use of Assignment: Category/Weight for Q1:	The actual packet will be checked for completion and will count as a homework grade. <u>All work</u> must be shown to receive full credit. The students will also be quizzed on this material on September 12th. Quizzes are 30% of your grade.
Specific Expectations:	Students are to try every problem. Students should also come to class with questions on any problems they did not understand.
Where to Locate Assignment:	Clearview Website
Teacher Contact Information:	Mrs. Jill Miller millerji@clearviewregional.edu Mrs. Karisa Wescott wescottka@clearviewregional.edu Mrs. Carrie Dolan dolanca@clearviewregional.edu Mrs. Cheryl Catts cattsch@clearviewregional.edu
Additional Help/ Resource(s):	Learnzillion.com, mathisfun.com, khanacademy.org, analyzemath.com, freemathhelp.com, analyzemath.com

Operations with Rational Numbers

Add, Subtract, Multiply or Divide.

1] $-12 + 4 =$	2] $-15 + (-7) =$
3] $-23 - 56 =$	4] $17 - 43 =$
5] $-25 - (-12) =$	6] $42 + (-13) =$
7] $-8(-9) =$	8] $\frac{-54}{-6} =$
9] $-18 - (-24) =$	10] $-32 - 81 =$
11] $-13 \cdot 11 =$	12] $-18.4 - 12.9 =$
13] $-33.58 \div 2.3 =$	14] $-8.3(-13.7) =$
15] $-\frac{4}{5} + \frac{2}{3} =$	16] $\frac{1}{2} - \frac{8}{9} =$
17] $-\frac{7}{11} - 3\frac{1}{3} =$	18] $1\frac{4}{7} - \left(-2\frac{5}{6}\right) =$
19] $\frac{25}{36} \cdot \left(-\frac{54}{55}\right) =$	20] $-1\frac{3}{4} \div \left(-1\frac{5}{16}\right) =$

Order of Operations

Evaluate each expression.

1] $(-4) \bullet 6 + (-9 - 5) =$	2] $9 \bullet 5 - 64 \div 16 + (-42) =$
3] $-7 + 4 + (3^3 - 12 \div 6) =$	4] $6 + (-18) - 7 \bullet 4 + 5^2 =$
5] $-72 \div 9 + (3^2 - 60) =$	6] $\frac{18-24 \div 4}{4^2-(-4)}$
7] $5(-5 - 7) \div 15 + (-12) =$	8] $5(14 - 42 \div 3) + 12 \bullet \frac{1}{4}$
9] $-162 + [6(17 - 14)^2] \div 3 =$	10] $\frac{4\{10-(27 \div 9)]}{(3-7)^2}$

Variables and Expressions

Write an algebraic expression for each word phrase.

1] 4 less than x	2] 5 times the sum of a number b and 4
3] the sum of 15 and m	4] 20 increased by a number h
5] one third of a number a	6] the difference of 9 and a number n
7] the quotient of 12 and b	8] 6 increased by the product of 3 and p

Substitution

Use substitution to determine whether the solution is correct.

1] $2x - 3 = 15;\ \ x = 9$	2] $3b + 4 = -10;\ b = -4$
3] $4 - 2m = 8;\ \ m = -2$	4] $5p + 12 = 24;\ p = 2$
5] $5a - 12 = -27;\ \ a = -3$	6] $20 - 4n = 32;\ n = -3$

Evaluating Expressions

Evaluate each expression when $a = 6$, $b = -3$, $c = -2$, and $d = \frac{1}{3}$.

1] $a + b - c$	2] $3a - 2b$
3] $4c - 3b - 9$	4] $-18d - 4a$
5] $\frac{6a-12}{2c}$	6] $ab - 7c - 30d$
7] $-4a - 2b - 3c$	8] $2bc - ad$

Solving Proportions

Solve each proportion below. Show all work.

1] $\frac{x}{21} = \frac{3}{63}$	2] $\frac{5}{x+1} = \frac{3}{12}$
3] $\frac{x}{5} = \frac{x+1}{10}$	4] $\frac{5}{2x} = \frac{3}{2x-1}$
5] $\frac{4}{5x} = \frac{2}{7}$	6] $\frac{3}{2x+5} = \frac{2}{x-4}$
7] $\frac{-5}{x+3} = \frac{2}{x-4}$	8] $\frac{x-3}{x} = \frac{1}{4}$

Distributing and Combining Like Terms

Simplify each expression.

1] $12a + 3b + 7a + 8b$	2] $-8n - 4m + 6n - 3m$
3] $14x + 12y - 8 - 8x - 16y$	4] $-6c - 15d + 12 - 2c + 15d - 18$
5] $3(5m - 8)$	6] $4(2a - 3) + 7a$
7] $5(3m + 4n) + 6(m + 2n)$	8] $3(4a - 2b) + 4(5a - b)$
9] $6(2x - 3y) - 3(4x - 2y)$	10] $-2(3c - 4d) - 4(6c + 2d) + 6$
11] $3(5m + 2) - 2(4m - 3n) + 6$	12] $2(4x - 3y - 8) - 3(5x - 2y + 7)$

Solving Equations

Solve each equation.

1] $4n - 8 = 40$	2] $\frac{3}{4}a - 12 = -3$
3] $-\frac{b}{4} + 7 = -10$	4] $-\frac{2}{5}m - 14 = -24$
5] $-10c + 14 = 9$	6] $-13a - 29 = -12a + 2$
7] $7z + 6 = 12z - 19$	8] $8m - 20 = -3m + 35$
9] $12n + 15 = 23 + 8n$	10] $5(d - 6) = 8d + 18$
11] $-18x - 14 = -24x + 6$	12] $\frac{2}{3}(6x - 18) = -3x + 9$

Solve each equation.

13] $7a - 4 - 12a = 5(2a - 1)$	14] $-4(3m - 8) = 2(5m + 3)$
15] $3y + 3 = 8(y + 9) - 2y$	16] $4(3b + 1) = 2(b - 3) - 10$
17] $3(2x + 5) - 15 = 4x + 22 - 9x$	18] $3 - 6(-3x + 1) = 4 + 2x - 11$
19] $14 + 6x - 44 = -3(x - 5)$	20] $\frac{5}{6}(24m - 42) = 4(2m - 3)$

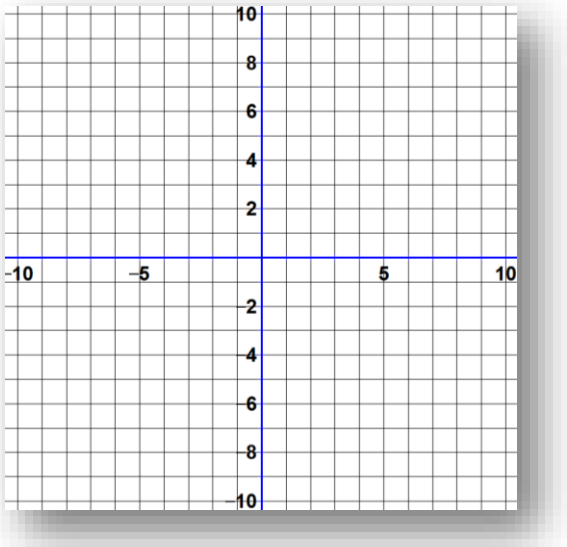
Equations, Tables, and Graphs

Complete each table, then graph.

Problem **Work** **Graph**

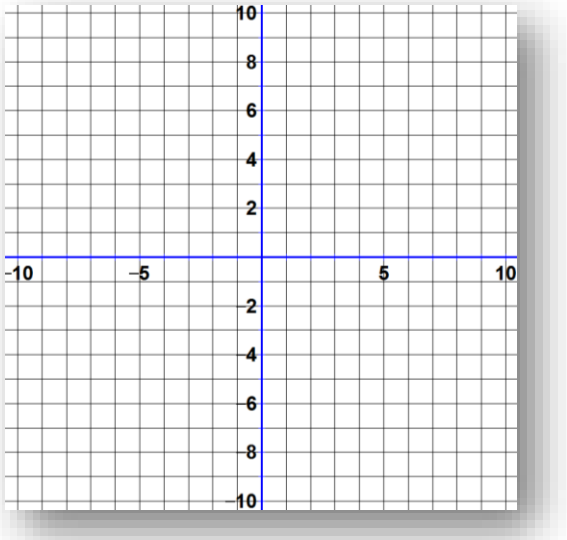
1] $y = 2x - 3$

x	y
-2	
-1	
0	
1	
2	



2] $y = -3x + 2$

x	y
0	
1	
2	
3	
4	



3] $-4x + y = 1$

CHOOSE YOUR OWN VALUES FOR X ☺

x	y