Clearview Regional High School District
2019 Summer Assignment Coversheet

Course:	**Honors Algebra 1**
Teacher(s):	Miller, Wescott, Catts, Paoletti
Due Date:	**September 6, 2019** **(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 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. **All work** must be shown to receive full credit. The students will also be quizzed on this material on **September 10th**. 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. Anne Paoletti paolettia@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] $-12+4=$ -8	2] $-15+(-7)=$ -22
3] $-23-56=$ -79	4] $17-43=$ -26
5] $-25-(-12)=$ -13	6] $42+(-13)=$ 29
7] $-8(-9)=$ 72	8] $\frac{-54}{-6}=$ 9
9] $-18-(-24)=$ 6	10] $-32-81=$ -113
11] $-13\cdot 11=$ -143	12] $-18.4-12.9=$ -31.3
13] $-33.58\div 2.3=$ -14.6	14] $-8.3(-13.7)=$ 113.71
15] $-\frac{4}{5}+\frac{2}{3}=$ $-\frac{2}{15}$	16] $\frac{1}{2}-\frac{8}{9}=$ $-\frac{7}{18}$
17] $-\frac{7}{11}-3\frac{1}{3}=$ $-3\frac{32}{33}$	18] $1\frac{4}{7}-\left(-2\frac{5}{6}\right)=$ $4\frac{17}{42}$
19] $\frac{25}{36}\cdot\left(-\frac{54}{55}\right)=$ $-\frac{15}{22}$	20] $-1\frac{3}{4}\div\left(-1\frac{5}{16}\right)=$ $1\frac{1}{3}$

Order of Operations

Evaluate each expression.

1] $(-4) \bullet 6 + (-9 - 5) =$ -38	2] $9 \bullet 5 - 64 \div 16 + (-42) =$ -1
3] $-7 + 4 + (3^3 - 12 \div 6) =$ 22	4] $6 + (-18) - 7 \bullet 4 + 5^2 =$ -15
5] $-72 \div 9 + (3^2 - 60) =$ -59	6] $\frac{18-24 \div 4}{4^2-(-4)}$ $\frac{3}{5}$
7] $5(-5 - 7) \div 15 + (-12) =$ -16	8] $5(14 - 42 \div 3) + 12 \bullet \frac{1}{4}$ 3
9] $-162 + [6(17 - 14)^2] \div 3 =$ -144	10] $\frac{4\{10-(27 \div 9)]}{(3-7)^2}$ $1\frac{3}{4}$

Variables and Expressions

Write an algebraic expression for each word phrase.

1] 4 less than x $x-4$	2] 5 times the sum of a number b and 4 $5(b+4)$
3] the sum of 15 and m $15+m$	4] 20 increased by a number h $h+20$
5] one third of a number a $\frac{1}{3}a$ or $\frac{a}{3}$	6] the difference of 9 and a number n $9-n$
7] the quotient of 12 and b $\frac{12}{b}$	8] 6 increased by the product of 3 and p $6+3p$

Substitution

Use substitution to determine whether the solution is correct.

1] $2x-3=15;\ x=9$ Yes	2] $3b+4=-10;\ b=-4$ No
3] $4-2m=8;\ m=-2$ Yes	4] $5p+12=24;\ p=2$ No
5] $5a-12=-27;\ a=-3$ Yes	6] $20-4n=32;\ n=-3$ Yes

Evaluating Expressions

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

1] $a + b - c$ 5	2] $3a - 2b$ 24
3] $4c - 3b - 9$ -8	4] $-18d - 4a$ -30
5] $\frac{6a-12}{2c}$ -6	6] $ab - 7c - 30d$ -14
7] $-4a - 2b - 3c$ -12	8] $2bc - ad$ 10

Solving Proportions

Solve each proportion below. Show all work.

1] $\frac{x}{21} = \frac{3}{63}$ $X = 1$	2] $\frac{5}{x+1} = \frac{3}{12}$ $X = 19$
3] $\frac{x}{5} = \frac{x+1}{10}$ $X = 1$	4] $\frac{5}{2x} = \frac{3}{2x-1}$ $X = \frac{5}{4}$ or $1\frac{1}{4}$
5] $\frac{4}{5x} = \frac{2}{7}$ $X = \frac{14}{5}$ or $2\frac{4}{5}$	6] $\frac{3}{2x+5} = \frac{2}{x-4}$ $X = -22$
7] $\frac{-5}{x+3} = \frac{2}{x-4}$ $X = 2$	8] $\frac{x-3}{x} = \frac{1}{4}$ $X = 4$

Distributing and Combining Like Terms

Simplify each expression.

1] $12a + 3b + 7a + 8b$ 19a+11b	2] $-8n - 4m + 6n - 3m$ -7m-2n
3] $14x + 12y - 8 - 8x - 16y$ 6x-4y-8	4] $-6c - 15d + 12 - 2c + 15d - 18$ -8c-6
5] $3(5m - 8)$ 15m-24	6] $4(2a - 3) + 7a$ 15a-12
7] $5(3m + 4n) + 6(m + 2n)$ 21m+32n	8] $3(4a - 2b) + 4(5a - b)$ 32a-10b
9] $6(2x - 3y) - 3(4x - 2y)$ -12y	10] $-2(3c - 4d) - 4(6c + 2d) + 6d$ -30c+6d
11] $3(5m + 2) - 2(4m - 3n) + 6$ 7m+6n+12	12] $2(4x - 3y - 8) - 3(5x - 2y + 7)$ -7x-37

Solving Equations

Solve each equation.

1] $4n - 8 = 40$ $n = 12$	2] $\frac{3}{4}a - 12 = -3$ $a = 12$
3] $-\frac{b}{4} + 7 = -10$ $b = 68$	4] $-\frac{2}{5}m - 14 = -24$ $m = 25$
5] $-10c + 14 = 9$ $c = \frac{1}{2}$	6] $-13a - 29 = -12a + 2$ $a = -31$
7] $7z + 6 = 12z - 19$ $z = 5$	8] $8m - 20 = -3m + 35$ $m = 5$
9] $12n + 15 = 23 + 8n$ $n = 2$	10] $5(d - 6) = 8d + 18$ $d = -16$
11] $-18x - 14 = -24x + 6$ $x = \frac{10}{3}$ or $3\frac{1}{3}$	12] $\frac{2}{3}(6x - 18) = -3x + 9$ $x = 3$

Solve each equation.

13] $7a - 4 - 12a = 5(2a - 1)$ $a = \frac{1}{15}$	14] $-4(3m - 8) = 2(5m + 3)$ $m = \frac{13}{11}$ or $1\frac{2}{11}$
15] $3y + 3 = 8(y + 9) - 2y$ $y = -23$	16] $4(3b + 1) = 2(b - 3) - 10$ $b = -2$
17] $3(2x + 5) - 15 = 4x + 22 - 9x$ $x = 2$	18] $3 - 6(-3x + 1) = 4 + 2x - 11$ $x = -\frac{1}{4}$
19] $14 + 6x - 44 = -3(x - 5)$ $x = 5$	20] $\frac{5}{6}(24m - 42) = 4(2m - 3)$ $m = \frac{23}{12}$ or $1\frac{11}{12}$

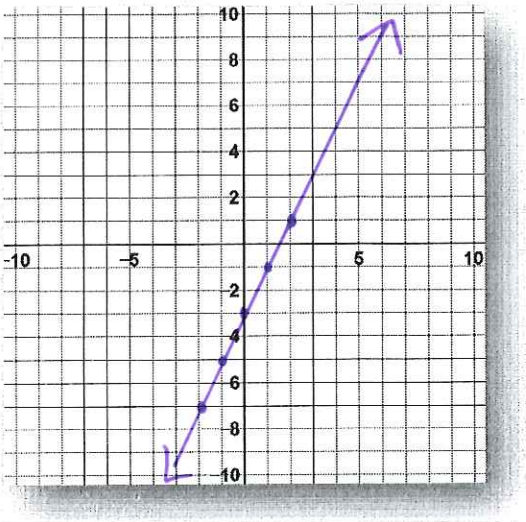
Equations, Tables, and Graphs

Complete each table, then graph.

Problem **Work** **Graph**

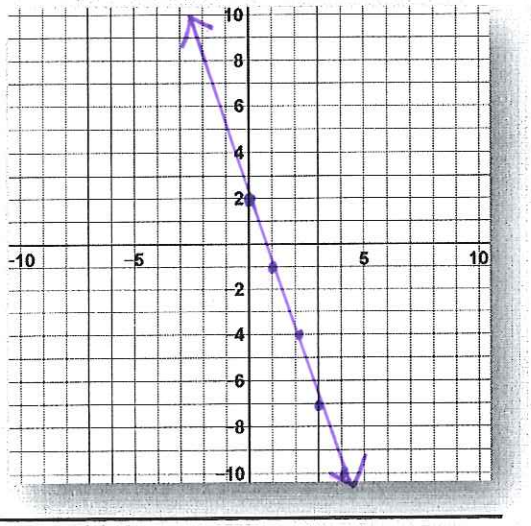
1] $y = 2x - 3$

x	y
-2	-7
-1	-5
0	-3
1	-1
2	1



2] $y = -3x + 2$

x	y
0	2
1	-1
2	-4
3	-7
4	-10



3] $-4x + y = 1$

CHOOSE YOUR OWN VALUES FOR X ☺

x	y
-1	-3
0	1
1	5
2	9