



Albert Einstein High School

Summer Task Cover Sheet



Teacher(s): Mr. Chris Colwander

Teacher(s) Contact Information: Chris_M_Colwander@mcpsmd.org

Course: Algebra 1

Purpose of the Summer Assignment:

To provide students and parents with an understanding of what concepts students are expected to know as they enter and/or leave marking period 1 of Algebra 1 class. In addition, this task will provide teachers feedback as to where student strengths and areas of growth are with relation to the content that is to be taught.

Relationship between Summer Task and 1st Quarter Objectives:

Each of the questions in the summer assignment are directly related to skills that will be taught and assessed during the 1st marking period of the 2018-2019 school year.

Description of the Task:

There are 20 questions outlined in this task, each focusing on a different aspect of the concepts related to 1st marking period.

Supportive Resources:

khanacademy.org and Youtube searches. As well, please sign up for the google classroom for Algebra 1 using the following code **3mkgud**

Grading:

DUE DATE: First Day of School, Tuesday September 4th, 2018

DEADLINE: Friday September 7th, 2018

Grading Category:

Completed Work

Points: 100 points

Extent to which the summer task counts towards the marking period grade:

5% of the student's grade for Marking Period 1 will come from this assignment.

Grading Criteria and Rubric:

Less than 15 of the questions answered will result in a score of 50%
10-point penalty for all assignments submitted after Tuesday September 4th, 2018



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ALBERT EINSTEIN HIGH SCHOOL

Algebra 1 Summer Review Packet

This assignment should serve as a review of the Algebra skills necessary for success. Our hope is that this review will keep your mind mathematically active during the summer months and help to identify your strengths and weaknesses coming into Algebra 1. Try to enjoy your summer, while staying sharp mentally. We look forward to working you in the fall.

NOTE: Students must show ALL work. This assignment will be collected on the first day of school and you may have a quiz directly from the packet during from the first week of school.

Name _____

Directions: Each of the following problems come from Pre-Algebra and should help prepare you for Algebra 1 in the fall. Please show ALL work for each problem.

(1 – 3) Use Order of Operations to simplify each expression:

1.) $3 + 7 \times 15$

1.) _____



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2.) $9 + 6 \div (8 - 2)$

2.) _____

3.) $8(3 + 4) - 2 \cdot 8 \div (5 - 3)$

3.) _____

(4 – 7) Simplify each:

4.) $-8d + 10d$

4.) _____

5.) $9p - 6 + 7 - 4p$

5.) _____

6.) $3 + 7(2v + 1)$

6.) _____

(7 – 10) Solve each equation for x **and** check your solutions.

7.) $30x = 480$

8.) $104 - x = 51$

7.) _____

8.) _____

8.) $5x + 6 = 3x - 22$

10.) $\frac{x}{24} = \frac{5}{12}$

9.) _____

10.) _____



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(11 – 13) Evaluate each expression given that $x = -2$, $y = 8$ and $z = \frac{1}{2}$

11.) $x^2 + 6$

11.) _____

12.) $3 - 4z$

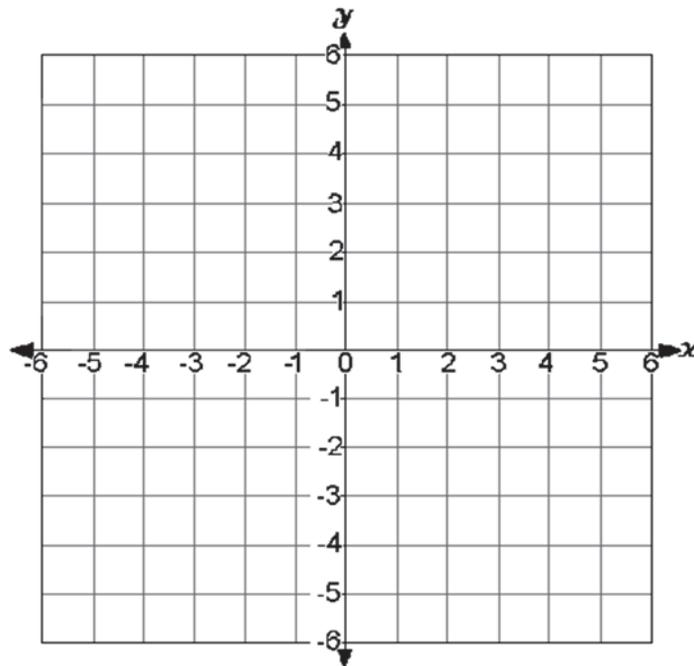
12.) _____

13.) $3x^3 - 4y + 12z$

13.) _____

(14 -15) Plot each of the following points on the coordinate plane:

14.) A (-2, 4) B(4, -2) C(3, 5) D(-5, 0) E(0, -4) F(-3, -6)





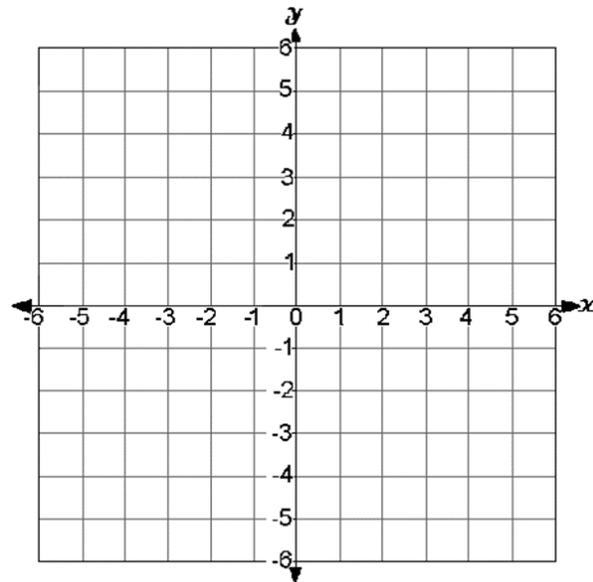
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15.)

x	y
2	1
4	1
5	-4
-3	4
0	2
-5	0



16.) If 331 students went on a field trip to the Filmore, where six buses were filled and 7 students traveled in cars then answer the questions below.

- Define the missing variable for the situation
- Write an equation to represent the situation.
- Solve your equation in (b) to find how many students can fit on a bus.
- Using your answer in (c), how many full buses of students could attend the field trip if the capacity is 2,050 people (no students drive or walk)?



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17.) Betty attended Chuck E. Cheese with her family. Her mother gave her some game tokens for her and some of her friends. Use the equation $4x + 16 = 40$ to answer the questions below:

- How many total tokens was Betty given?
- What does the '4' represent in the context of the problem?
- What does the '16' represent in the context of the problem?
- Solve the given equation to find how many friends Betty has with her.

18.) Which is the correct solution set if $3x - 5 \leq 7$?

- a. $x \geq 4$ b. $x \leq 9$ c. $x \leq \frac{2}{3}$ d. $x \leq 4$

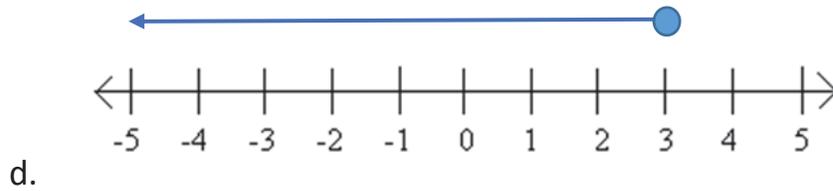
19.) Which is the correct graph of the solution set $x > 3$?

- a. 
- b. 



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20.) Use properties of exponents to simplify each expression.

a. 3^2

b. $x^2 \cdot x^3$

c. $(4xy)^3$

d. $\frac{8x^{32}}{2x^{22}}$