

**Teachers: Castello, Pereira, Piuser, Tober**

**Course: Algebra 1**

**Periods: all**

**Assignment: Week 2 – Solving Equations**

Teacher: Castello, Pereira, Piuser, Tober

Subject: Algebra 1

Dates: Week 2: 4/27 – 5/1

Welcome to our Distance Learning Classroom!

Student Time Expectation per day: 30 minutes

| Content Area<br>& Materials<br>Algebra 1   | Learning Objectives   | Tasks   | Check-in Opportunities  | Submission of Work for Grades  |
|--|---|---|---|--|
| <p><b>PAPER PACKET</b></p> <ul style="list-style-type: none"> <li>Weekly Planner (this sheet)</li> <li>Notes/Examples page</li> <li>3 worksheets on solving multi-step equations</li> </ul> <p><b>Digital Option</b></p> <ul style="list-style-type: none"> <li>Log on to your khan academy account at <a href="http://www.khanacademy.org">www.khanacademy.org</a></li> <li>Complete the khan academy activities assigned by your teacher.</li> </ul> | <p><b>ESSENTIAL QUESTION:</b></p> <p>How do you solve an equation that requires multiple steps?</p> <p><b>STUDENTS WILL...</b></p> <ul style="list-style-type: none"> <li>Be able to use the distributive property in an equation</li> <li>Be able to combine like terms to simplify an equation.</li> <li>Be able to solve a multi-step equation.</li> </ul> | <p><b>PAPER PACKET:</b></p> <p>If you picked up a paper packet you are expected to turn in the 3 worksheets completed in order to get credit for week 2. (per distance learning calendar, week 2 work is due May 8). Work should be shown on a separate piece of paper. You are also welcome to scan or take photos of your work and email them to your teacher.</p> <p><b>ONLINE WORK:</b></p> <p>You are to complete the assigned Khan academy activities by May 8.</p> | <p><b>OFFICE HOURS:</b></p> <p><b>Mrs. Castello:</b><br/>Office Hours:<br/>Mon – Fri, 9am – 11am<br/>Email: <a href="mailto:ccastello@tusd.net">ccastello@tusd.net</a><br/>Google #: (209) 597-8667</p> <p><b>Ms. Pereira:</b><br/>Office Hours:<br/>Zoom meeting<br/>Mon-Fri, 12pm – 1pm<br/>Email: <a href="mailto:mpereira@tusd.net">mpereira@tusd.net</a><br/>Google #: (209) 597-8039</p> <p><b>Mr. Piuser:</b><br/>Office Hours:<br/>Mon-Fri, 12pm – 2pm<br/>Email: <a href="mailto:apiuser@tusd.net">apiuser@tusd.net</a><br/>Google #: (209) 691-3102</p> <p><b>Mrs. Tober:</b><br/>Office Hours:<br/>Mon – Fri, 1pm – 3pm<br/>Email: <a href="mailto:jtober@tusd.net">jtober@tusd.net</a><br/>Google #: (209) 597-8704</p> | <p>Students are expected to complete either the paper packet <u>or</u> the digital option in order to receive full credit.</p> <p><b>IF SUBMITTING THE PAPER PACKET, LABEL WITH:</b></p> <ul style="list-style-type: none"> <li>Student Name (First and Last)</li> <li>Teacher Name</li> <li>Algebra 1</li> <li>Period #: _____</li> </ul> <p><b>PREFERRED:</b><br/>TO SUBMIT ELECTRONICALLY, simply email your teacher a scan or photos of your completed work.</p> |

Definitions

Order of Operations: Parentheses, Exponents, Multiplication and Division, Addition and Subtraction

One step equations

$$\begin{array}{l} \text{Ex 1: } x - 6 = 3 \\ \quad \quad \quad \cancel{+6} \quad +6 \\ x = 3 + 6 \\ x = 9 \end{array}$$

Opposite operation to cancel

$$\begin{array}{l} \text{Ex 2: } \frac{x}{6} = 3 \\ \quad \quad \quad \cancel{\cdot 6} \quad \cdot 6 \\ x = 3 \cdot 6 \\ x = 18 \end{array}$$

Fractions are division problems!

Two step equations

$$\begin{array}{l} \text{Ex 3: } \frac{x}{6} - 6 = 3 \\ \quad \quad \quad \cancel{+6} \quad +6 \\ \frac{x}{6} = 9 \\ \quad \quad \quad \cancel{\cdot 6} \quad \cdot 6 \\ x = 54 \end{array}$$

Multi-step equations are usually solved in reverse of the order of operations. Notice the subtraction is canceled by addition, and then the division is canceled by a multiplication.

Variables on both sides

$$\begin{array}{l} \text{Ex 4: } 4x + 7 = 13 - 2x \\ \quad \quad \quad +2x \quad \quad \quad \cancel{+2x} \\ 6x + 7 = 13 \\ \quad \quad \quad \cancel{-7} \quad -7 \\ 6x = 6 \\ \quad \quad \quad \cancel{\div 6} \quad \div 6 \\ x = 1 \end{array}$$

When the same variable is on both sides, find a way to add or subtract the variable to “cancel” it on one side. Then you can solve like normal.

# BOOKS NEVER WRITTEN

*The Break-in* by

$\overline{10}$   $\overline{-13}$   $\overline{-7}$   $\overline{-7}$   $\overline{-25}$   $\overline{8}$   $\overline{72}$   $\overline{6}$   $\overline{5}$   $\overline{-4}$

*Origin of Man* by

$\overline{-1}$   $\overline{-11}$   $\overline{-2}$   $\overline{72}$   $\overline{17}$   $\overline{-6}$   $\overline{25}$   $\overline{17}$   $\overline{12}$

*Making Soap* by

$\overline{-9}$   $\overline{25}$   $\overline{-13}$   $\overline{72}$   $\overline{-8}$   $\overline{25}$   $\overline{-2}$   $\overline{12}$   $\overline{-6}$

ABOVE ARE THE TITLES OF THREE "BOOKS NEVER WRITTEN."  
TO DECODE THE NAMES OF THEIR AUTHORS:

Solve each equation below and find your solution in the code. Each time the solution appears, write the letter of that exercise above it.

Ⓐ  $4y - 9 = 15$

Ⓐ  $6x + 7 = -5$

Ⓐ  $-9t + 2 = 56$

Ⓐ  $-69 = 7v - 6$

Ⓐ  $35 = -2x - 15$

Ⓐ  $4 - 3n = 43$

Ⓐ  $12 - 5u = -48$

Ⓐ  $-27 + 20w = 73$

Ⓐ  $13 = 5 - 8m$

Ⓐ  $11r + 60 = 16$

Ⓐ  $y - 24 = -7$

Ⓐ  $23 - x = 13$

Ⓐ  $-67 = 6x - 1$

Ⓐ  $-4e - 9 = 19$

Ⓐ  $-8 = 32 - 5q$

Ⓐ  $6 + 10k = 256$

Ⓐ  $-100 = 12t - 4$

Ⓐ  $36 - x = -36$

# CRYPTIC QUIZ

1. Why does Beethoven now spend all his time erasing music?

$\overline{16}$   $\overline{6}$   $\overline{-4}$   $\overline{10}$   $\overline{-3}$   $\overline{6}$   $\overline{-9}$   $\overline{7}$   $\overline{20}$   $\overline{-5}$   $\overline{7}$   $\overline{10}$   $\overline{-4}$   $\overline{3}$   $\overline{21}$

2. What is it called when a sea bird lands on a channel marker?

$\overline{-36}$   $\overline{9}$   $\overline{7}$   $\overline{-8}$   $\overline{20}$   $\overline{6}$   $\overline{6}$   $\overline{-2}$   $\overline{10}$   $\overline{21}$   $\overline{9}$   $\overline{11}$   $\overline{11}$

3. How does a tree feel after a hard day at work?

$\overline{-36}$   $\overline{9}$   $\overline{10}$   $\overline{16}$   $\overline{6}$   $\overline{-3}$

TO DECODE THE ANSWERS TO THESE QUESTIONS:

Solve each equation below and find your answer in the code. Each time the solution appears, write the letter of that exercise above it.

Ⓐ  $8u = 3u + 35$

Ⓝ  $7y = 33 - 4y$

Ⓔ  $2x + 48 = 10x$

Ⓣ  $5t - 26 = 18t$

Ⓢ  $k = 8k + 28$

Ⓖ  $-30n = -27n - 63$

ⓗ  $4x + 4 = 2x + 36$

Ⓓ  $9y - 1 = y - 25$

Ⓟ  $14p - 8 = 22 + 20p$

Ⓛ  $z + 81 = 9z - 7$

Ⓨ  $39 - 12w = 7 - 16w$

Ⓒ  $-15v - 40 = 23 - 8v$

Ⓜ  $63 - x = 2x + 3$

Ⓤ  $3n + 46 = 1 + 8n$

Ⓑ  $12r - 18 = 13r + 18$

Ⓢ  $-x - 1 = x - 21$

# Why Do Girls Like Guys Who Wear Shirts With Eight Buttons?

Solve each equation below and find your solution at the bottom of the page.  
Write the letter of that equation above the solution.

(E)  $4(5n - 7) = 10n + 2$

(N)  $9(x + 3) = 4x - 3$

(A)  $2(12 - 8x) = x - 11x$

(H)  $3t + 8(2t - 6) = 2 + 14t$

(E)  $2v + 18 = 16 - 4(v + 7)$

(I)  $4x - (9 - 3x) = 8x - 1$

(T)  $12(3 + y) = 5(2y + 8)$

(A)  $-7(1 - 4m) = 13(2m - 3)$

(Y)  $9(11 - k) = 3(3k - 9)$

(S)  $4x + 5(7x - 3) = 9(x - 5)$

(T)  $2(6d + 3) = 18 - 3(16 - 3d)$

(F)  $8(4u - 1) - 12u = 11(2u - 6)$

(C)  $-5 - (15y - 1) = 2(7y - 16) - y$



|   |    |   |   |   |    |   |    |   |    |    |     |     |    |
|---|----|---|---|---|----|---|----|---|----|----|-----|-----|----|
|   |    |   |   |   |    |   |    |   |    |    |     |     |    |
| 2 | 10 | 3 | 7 | 9 | 29 | 4 | -1 | 1 | -8 | -6 | -16 | -12 | -5 |