

# Algebra 1

## CP 4/13-4/17

**Please spend 2 hours on math work this week. Nothing is graded, BUT I expect a submission to Google Classroom by Friday, April 17. Please reach out if you need anything at all!**

We worked hard to ensure that the Learning Plan provides accessibility for all learners. We hope that you see that there are options to engage learners at all levels. *These activities are not intended to replace the normal school day.* There is now an expectation for students to turn these documents in to your specific educators. We want you to take time to enjoy family, be safe, stay healthy and find time within this week to engage in learning opportunities. Feel free to create a schedule that works for you and your family. We strongly encourage each student to participate in approximately two hours a day. We want your brain working and challenging yourself, while staying safe and having fun.

### **Part 1: Check answers from last week OR practice operations **20 min (nothing to submit)****

Spend time checking your answers from last week's assignment with the answer key posted on Classroom. If you did not complete last week's assignment, then:

Spend 20 minutes this week in total practicing your sign rules with addition, subtraction, multiplication, and division. Here are links to Khan Academy practice problems you can try and videos to help you if you need them. You do not need to submit anything, just practice!

[Adding/Subtracting](#)

[Multiplying](#)

[Dividing](#)

Another good website for practicing operations is Math Games (below) where you can practice any skill

[Math Games](#)

### **Part 2: Solving Equations **40 min (submit)****

#### **Solving Equations**

- **Goal** - > Isolate the variable to solve
- Use **inverse operations** to **cancel terms** and **move terms from one side to another**

Solve the following equations.

1.  $x - 7 = -2$

2.  $-4x = 8$

3.  $\frac{x}{3} = 12$

4.  $5 + 2x = 13$

5.  $\frac{1}{3}x = 9$

6.  $4 - n = 9$

7.  $-\frac{a}{6} + 4 = 10$

8.  $\frac{3n+2}{7} = 2$

9.  $3x - 9 = x - 2$

10.  $3 - 7x + 2x = 10 + 6x - 12$

11.  $(5x + 9) - (3x + 10) = 2(11 + x)$

12.  $4(2 - x) = 6x$

13.  $-3(m - 5) = m + 9$

14.  $\frac{3}{7}x - 5 = 9 - \frac{4}{7}x$

### Part 3: Find the error in solving equations **30 min (submit)**

Look at the following problems that have already been solved. Determine and explain where the problem was solved incorrectly.

Problem and Incorrect Solution	Explanation of Errors Made (some have more than one mistake)
$\begin{array}{r} 2x - 2 = 14 \\ \underline{-2 \quad -2} \\ 2x \quad = 12 \\ \underline{\quad \quad 2} \\ x \quad = 6 \end{array}$	
$\begin{array}{r} 5y + (-5) = 10 \\ \underline{-5 \quad -5} \\ 5y \quad = 5 \\ \underline{\quad \quad 5} \\ y \quad = 1 \end{array}$	
$\begin{array}{r} \frac{x}{6} + 3 = -18 \\ \underline{-3 \quad -3} \\ 6 \bullet \frac{x}{6} = -15 \bullet 6 \\ x \quad = -90 \end{array}$	
$\begin{array}{r} 4 - 2x = -2 \\ \underline{+4 \quad +4} \\ 2x = 2 \\ \underline{\quad \quad 2} \\ x = 6 \end{array}$	

Problem and Incorrect Solution	Explanation of Errors Made (some have more than one mistake)
$  \begin{array}{r}  -2(8m + 8) = -16 \\  -16m + 16 = -16 \\  \phantom{-16m} -16 \quad -16 \\  \hline  -16m \phantom{+ 16} = -32 \\  \frac{-16m}{16} \phantom{+ 16} = \frac{-32}{16} \\  m \phantom{+ 16} = -2  \end{array}  $	
$  \begin{array}{r}  5(1 + 4h) + 2h = 27 \\  5 + 20h + 2h = 27 \\  \phantom{5 + 20h} 27h = 27 \\  \frac{27h}{27} \phantom{+ 2h} = \frac{27}{27} \\  h \phantom{+ 2h} = 1  \end{array}  $	

Part 4 (below)

## Part 4: Explain the steps in solving-written or video **30 min** **(submit)**

Solve the following three problems and **explain every step to solving the equation**. You may **write** your explanation or **create a video** of you solving and explaining the steps.

- **Please include words like first, then, and next in your answer.**

1.  $3x - 5 = 40$

2.  $\frac{x}{7} - 3 = 9$

3.  $2(x - 9) = 3x + 4 + x$