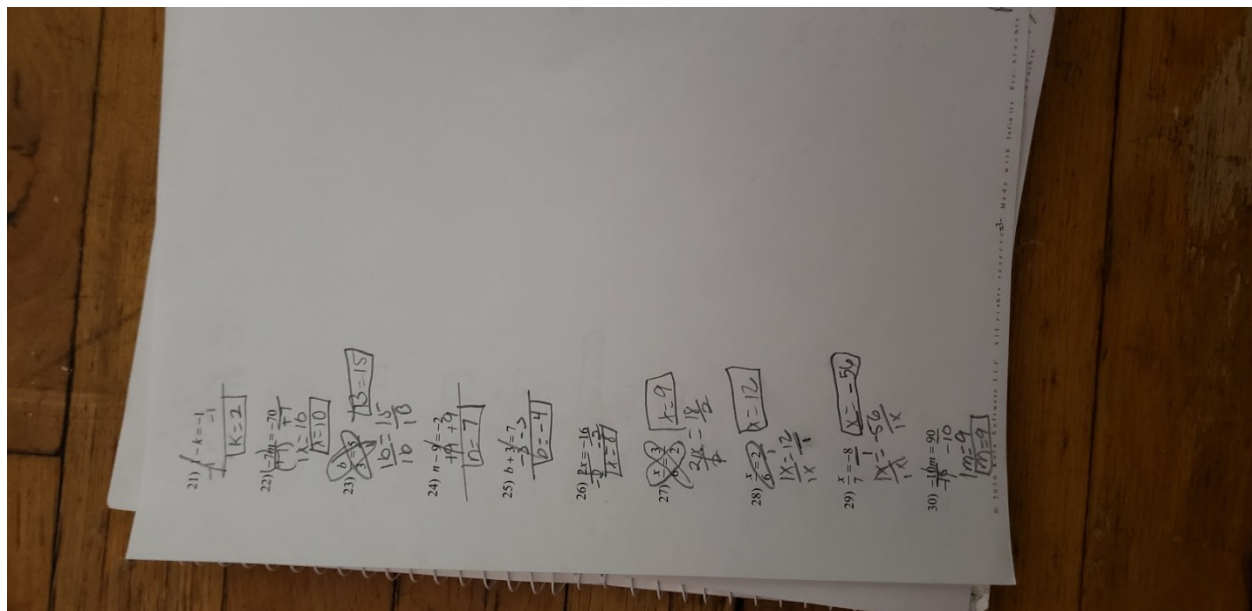
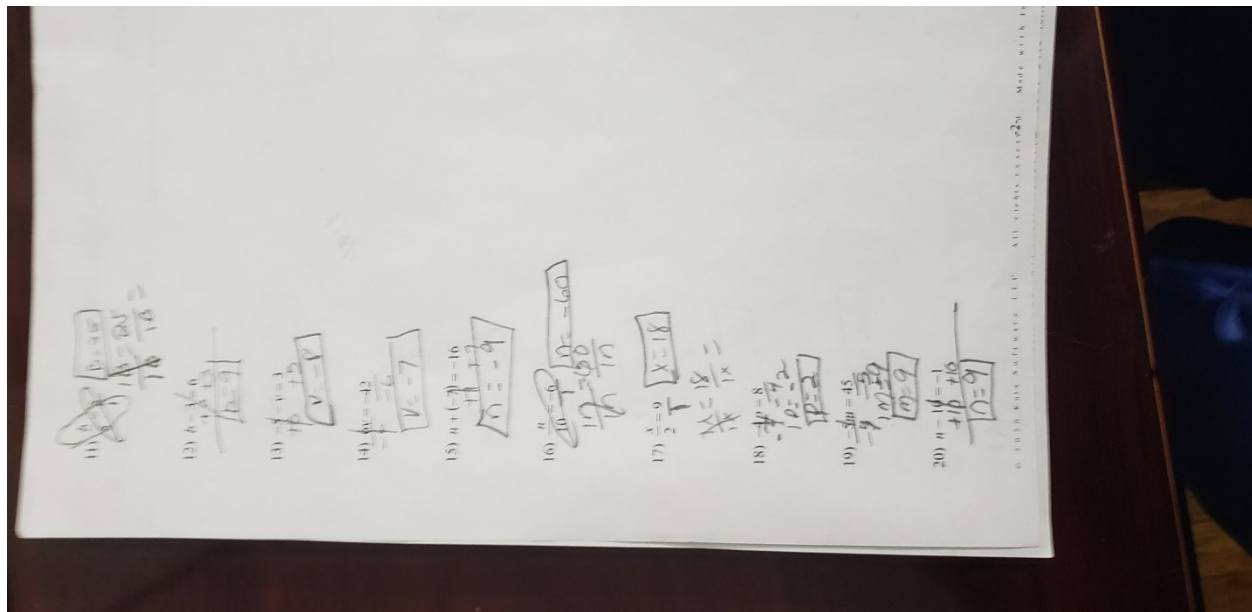




DE 1107 Introduction to Algebra Professor Ricky P. H.

Name: Della Louisa Atkins Date: 9/9/2020

Foundations of Algebra HW #9: Intro. to Algebra Equation

Solve each equation. Show all work to receive full credit.

1)  $x - \frac{2}{3} = \frac{1}{3}$   

$$\frac{x - \frac{2}{3} + \frac{2}{3}}{\frac{x - \frac{2}{3} + \frac{2}{3}}{\frac{1}{3} + \frac{2}{3}}} = \frac{\frac{1}{3}}{\frac{1}{3} + \frac{2}{3}}$$
  

$$\frac{x}{1} = \frac{1}{3} + \frac{2}{3}$$
  

$$x = 1$$

2)  $\frac{1}{2}x + 3 = \frac{1}{2}$   

$$\frac{1}{2}x + 3 - 3 = \frac{1}{2} - 3$$
  

$$\frac{1}{2}x = -\frac{5}{2}$$
  

$$\frac{1}{2}x \cdot 2 = -\frac{5}{2} \cdot 2$$
  

$$x = -5$$

3)  $\frac{1}{2}x - \frac{1}{3} = \frac{1}{6}$   

$$\frac{1}{2}x - \frac{1}{3} + \frac{1}{3} = \frac{1}{6} + \frac{1}{3}$$
  

$$\frac{1}{2}x = \frac{1}{6} + \frac{2}{6}$$
  

$$\frac{1}{2}x = \frac{3}{6}$$
  

$$\frac{1}{2}x = \frac{1}{2}$$
  

$$\frac{1}{2}x \cdot 2 = \frac{1}{2} \cdot 2$$
  

$$x = 1$$

4)  $\frac{1}{2}x = \frac{1}{3}$   

$$\frac{1}{2}x \cdot 2 = \frac{1}{3} \cdot 2$$
  

$$x = \frac{2}{3}$$

5)  $x + \frac{1}{2} = \frac{1}{2}$   

$$x + \frac{1}{2} - \frac{1}{2} = \frac{1}{2} - \frac{1}{2}$$
  

$$x = 0$$

6)  $x - \frac{1}{2} = \frac{1}{2}$   

$$x - \frac{1}{2} + \frac{1}{2} = \frac{1}{2} + \frac{1}{2}$$
  

$$x = 1$$

7)  $\frac{1}{2}x = \frac{1}{3}$   

$$\frac{1}{2}x \cdot 2 = \frac{1}{3} \cdot 2$$
  

$$x = \frac{2}{3}$$

8)  $\frac{1}{2}x = \frac{1}{3}$   

$$\frac{1}{2}x \cdot 2 = \frac{1}{3} \cdot 2$$
  

$$x = \frac{2}{3}$$

9)  $x + \frac{1}{2} = \frac{1}{2}$   

$$x + \frac{1}{2} - \frac{1}{2} = \frac{1}{2} - \frac{1}{2}$$
  

$$x = 0$$

10)  $\frac{1}{2}x = \frac{1}{3}$   

$$\frac{1}{2}x \cdot 2 = \frac{1}{3} \cdot 2$$
  

$$x = \frac{2}{3}$$

11)  $\frac{1}{2}x = \frac{1}{3}$   

$$\frac{1}{2}x \cdot 2 = \frac{1}{3} \cdot 2$$
  

$$x = \frac{2}{3}$$

12)  $\frac{1}{2}x = \frac{1}{3}$   

$$\frac{1}{2}x \cdot 2 = \frac{1}{3} \cdot 2$$
  

$$x = \frac{2}{3}$$

13)  $\frac{1}{2}x = \frac{1}{3}$   

$$\frac{1}{2}x \cdot 2 = \frac{1}{3} \cdot 2$$
  

$$x = \frac{2}{3}$$

14)  $\frac{1}{2}x = \frac{1}{3}$   

$$\frac{1}{2}x \cdot 2 = \frac{1}{3} \cdot 2$$
  

$$x = \frac{2}{3}$$