

<p style="text-align: center;"><b>Monday</b></p> <p><b>Objective:</b> Solve two-step equations.</p> <p><b>Directions:</b> Solve the equation. Show all work. If necessary, leave your answer as a simplified improper fraction.</p> <p style="text-align: right;">10. 6 11. 39 12. 47 7. 30 8. 11/5 9. 56 4. 11 5. 6 6. 38/3 Ans 1. -1 2. 3 3. 28</p>	<p>1. <math>4g - \frac{1}{2} = -6</math> <math>\frac{+2}{+2} \frac{+2}{+2}</math> <math>\frac{4g}{4} = \frac{-4}{4}</math> <math>g = -1</math></p>	<p>2. <math>18 = 5p + 3</math> <math>\frac{-3}{-3} \frac{-3}{-3}</math> <math>\frac{15}{5} = \frac{5p}{5}</math> <math>3 = p</math></p>	<p>3. <math>0.2n + 3 = 8.6</math> <math>\frac{-3}{-3} \frac{-3}{-3}</math> <math>\frac{0.2n}{0.2} = \frac{5.6}{0.2}</math> <math>n = 28</math></p>	
	<p>4. <math>7m - 17 = 60</math> <math>\frac{+17}{+17} \frac{+17}{+17}</math> <math>\frac{7m}{7} = \frac{77}{7}</math> <math>m = 11</math></p>	<p>5. <math>\frac{x}{3} - 7 = -7</math> <math>\frac{+6}{+6} \frac{+6}{+6}</math> <math>(\cancel{3}) \frac{x}{\cancel{3}} = -2(\cancel{3})</math> <math>x = -6</math></p>	<p>6. <math>\frac{3}{2}a - 9 = 11</math> <math>\frac{+9}{+9} \frac{+9}{+9}</math> <math>(\cancel{3}) \frac{a}{\cancel{2}} = \frac{19(\cancel{3})}{\cancel{2}}</math> <math>a = \frac{38}{2}</math></p>	
	<p>7. <math>6a - 7 = -17(-2)</math> <math>b + 4 = 34</math> <math>\frac{-4}{-4} \frac{-4}{-4}</math> <math>b = 30</math></p>	<p>8. <math>3.1y - 1.5 = 5.32</math> <math>\frac{+1.5}{+1.5} \frac{+1.5}{+1.5}</math> <math>\frac{3.1y}{3.1} = \frac{6.82}{3.1}</math> <math>y = 2.2</math></p>	<p>9. <math>\frac{x}{8} + 27 = 14</math> <math>\frac{-27}{-27} \frac{-27}{-27}</math> <math>(\cancel{8}) \frac{x}{\cancel{8}} = -7(\cancel{8})</math> <math>x = -56</math></p>	
	<p>10. <math>\frac{2}{3}n - 9 = -10</math> <math>\frac{+6}{+6} \frac{+6}{+6}</math> <math>(\cancel{2}) \frac{n}{\cancel{3}} = \frac{-10(\cancel{3})}{\cancel{3}}</math> <math>n = -6</math></p>	<p>11. <math>\frac{p-15}{1} = -6(9)</math> <math>p - 15 = -54</math> <math>\frac{+15}{+15} \frac{+15}{+15}</math> <math>p = -39</math></p>	<p>12. <math>\frac{w+3}{5} - 4 = 6</math> <math>\frac{+4}{+4} \frac{+4}{+4}</math> <math>(\cancel{5}) \frac{w+3}{\cancel{5}} = 10(\cancel{5})</math> <math>w + 3 = 50 \rightarrow w = 47</math></p>	

<p style="text-align: center;"><b>Tuesday</b></p> <p><b>Objective:</b> Solve multi-step equations.</p> <p><b>Directions:</b> Solve the equation. Show all work. If necessary, leave your answer as a simplified improper fraction.</p> <p style="text-align: right;">10. 6 11. 5/21 12. 31/36 7. 7 8. 9/10 4. 7 5. 3/2 6. 76/3 Ans 1. 2 2. 6 3. 5</p>	<p>1. <math>7n + 6(-2n) = -4</math> <math>5n + 6 = -4</math> <math>\frac{-6}{-6} \frac{-6}{-6}</math> <math>\frac{5n}{5} = \frac{-10}{5}</math> <math>n = -2</math></p>	<p>2. <math>-11 = 4 + 3c + 3</math> <math>-11 = 7 + 3c</math> <math>\frac{-7}{-7} \frac{-7}{-7}</math> <math>\frac{-18}{3} = \frac{3c}{3}</math> <math>-6 = c</math></p>	<p>3. <math>2(2a - 1) - 3 = 15</math> <math>4a - 2 - 3 = 15</math> <math>4a - 5 = 15</math> <math>\frac{+5}{+5} \frac{+5}{+5}</math> <math>\frac{4a}{4} = \frac{20}{4} \rightarrow a = 5</math></p>	
	<p>4. <math>-53 = 7(g - 2) + 10</math> <math>-53 = 7g - 14 + 10</math> <math>-53 = 7g - 4</math> <math>\frac{+4}{+4} \frac{+4}{+4}</math> <math>\frac{-49}{7} = \frac{7g}{7} \rightarrow -7 = g</math></p>	<p>5. <math>3.5x + 5(-1.5x) = 8</math> <math>2x + 5 = 8</math> <math>\frac{-5}{-5} \frac{-5}{-5}</math> <math>\frac{2x}{2} = \frac{3}{2}</math> <math>x = \frac{3}{2}</math></p>	<p>6. <math>6(-3j - 4) = -12(6)</math> <math>-3j + 4 = -72</math> <math>\frac{-4}{-4} \frac{-4}{-4}</math> <math>\frac{-3j}{-3} = \frac{-76}{-3} \rightarrow j = \frac{76}{3}</math></p>	
	<p>7. <math>\frac{9x+4}{5} - 8 = 5.4</math> <math>\frac{+8}{+8} \frac{+8}{+8}</math> <math>(\cancel{5}) \frac{9x+4}{\cancel{5}} = 13.4(\cancel{5})</math> <math>9x + 4 = 67</math> <math>\frac{-4}{-4} \frac{-4}{-4}</math> <math>\frac{9x}{9} = \frac{63}{9}</math> <math>x = 7</math></p>	<p>8. <math>3(2x - 1) + 4x = 42</math> <math>6x - 3 + 4x = 42</math> <math>10x - 3 = 42</math> <math>\frac{+3}{+3} \frac{+3}{+3}</math> <math>\frac{10x}{10} = \frac{45}{10}</math> <math>x = \frac{9}{2}</math></p>	<p>9. <math>\frac{2x}{3} - 5x = 4 - 1(x + 1)</math> <math>\frac{2x}{3} - 5x = 4 - x - 1</math> <math>(\cancel{3}) \frac{2x}{\cancel{3}} - 5x = 3 - x</math> <math>2x - 15x = 9 - 3x</math> <math>-13x = 9 - 3x</math> <math>\frac{+3x}{+3x} \frac{+3x}{+3x}</math> <math>-10x = 9</math> <math>\frac{-10}{-10} \frac{-10}{-10}</math> <math>x = \frac{-9}{10}</math></p>	
	<p>10. <math>6x - 1(2x - 9) = 33</math> <math>6x - 2x + 9 = 33</math> <math>4x + 9 = 33</math> <math>\frac{-9}{-9} \frac{-9}{-9}</math> <math>\frac{4x}{4} = \frac{24}{4}</math> <math>x = 6</math></p>	<p>11. <math>\frac{5x+1}{2} + \frac{3(x+1)}{7} = 3</math> <math>30x + 4 = 9(x+1)</math> <math>30x + 4 = 9x + 9</math> <math>\frac{-9x}{-9x} \frac{-9x}{-9x}</math> <math>21x + 4 = 9</math> <math>\frac{-4}{-4} \frac{-4}{-4}</math> <math>\frac{21x}{21} = \frac{5}{21} \rightarrow x = \frac{5}{21}</math></p>	<p>12. <math>\frac{28}{1} - \frac{18(2x-1)}{1} = 15</math> <math>28 - 36x + 18 = 15</math> <math>28 - 36x + 18 = 15</math> <math>\frac{-46}{-46} \frac{-46}{-46}</math> <math>\frac{-36x}{-36} = \frac{-91}{-36} \rightarrow x = \frac{31}{36}</math></p>	

Wednesday

**Objective:** Solve equations with variables on both sides of the equal sign.

**Directions:** Solve the equation. Show all work. If necessary, leave your answer as a simplified improper fraction.

$$1. \begin{array}{r} 3 - 4x = 10x + 10 \\ +4x \quad +4x \\ \hline 3 = 14x + 10 \\ -10 \quad -10 \\ \hline -7 = 14x \\ \frac{-7}{14} = \frac{14x}{14} \rightarrow \boxed{-\frac{1}{2} = x} \end{array}$$

$$2. \begin{array}{r} 3x - 5 = 7x - 21 \\ -3x \quad -3x \\ \hline -5 = 4x - 21 \\ +21 \quad +21 \\ \hline 16 = 4x \\ \frac{16}{4} = \frac{4x}{4} \rightarrow \boxed{4 = x} \end{array}$$

$$3. \begin{array}{r} -4x + 8 = 4(2x + 5) \\ -4x + 8 = 8x + 20 \\ -8x \quad -8x \\ \hline -12x + 8 = 20 \\ -8 \quad -8 \\ \hline -12x = 12 \\ \frac{-12x}{-12} = \frac{12}{-12} \\ \boxed{x = -1} \end{array}$$

$$4. \begin{array}{r} 6(x+2) - 4 = -10 \\ 6x + 12 - 4 = -10 \\ 6x + 8 = -10 \\ -8 \quad -8 \\ \hline 6x = -18 \\ \frac{6x}{6} = \frac{-18}{6} \rightarrow \boxed{x = -3} \end{array}$$

$$5. \begin{array}{r} 7(m-3) + 2 = 9 \\ 7m - 21 + 2 = 9 \\ 7m - 19 = 9 \\ +19 \quad +19 \\ \hline 7m = 28 \\ \frac{7m}{7} = \frac{28}{7} \\ \boxed{m = 4} \end{array}$$

$$6. \begin{array}{r} 5\left(\frac{1}{2}x - 6\right) = 4 \\ 5\left(\frac{1}{2}x\right) - 30 = 4 \\ \frac{5}{2}x - 30 = 4 \\ +30 \quad +30 \\ \hline \frac{5}{2}x = 34 \\ \frac{2}{2} \cdot \frac{5}{2}x = \frac{2}{2} \cdot 34 \\ \frac{5x}{2} = 68 \\ \frac{5x}{5} = \frac{68 \cdot 2}{5} \\ \boxed{x = \frac{136}{5}} \end{array}$$

$$7. \begin{array}{r} 4(2a-1) = -10(a-5) \\ 8a - 4 = -10a + 50 \\ +10a \quad +10a \\ \hline 18a - 4 = 50 \\ +4 \quad +4 \\ \hline 18a = 54 \\ \frac{18a}{18} = \frac{54}{18} \rightarrow \boxed{a = 3} \end{array}$$

$$8. \begin{array}{r} 3(1+x) - 5 = 3x - 2 \\ 3x + 3 - 5 = 3x - 2 \\ -2 \quad -2 \\ \hline -2 = -2 \checkmark \end{array}$$

**Infinitely many sol.**

$$9. \begin{array}{r} 2(x-3) + 5 = 3(x-1) - x \\ 2x - 6 + 5 = 3x - 3 - x \\ 2x - 1 = 2x - 3 \\ -2x \quad -2x \\ \hline -1 = -3 \end{array}$$

**No sol.**

$$10. \begin{array}{r} \frac{3}{2}x - \frac{2}{2}x = 4 + \frac{1}{2}x \\ \frac{1}{2}x = 4 + \frac{1}{2}x \\ 0 = 4 \end{array}$$

**No sol.**

$$11. \begin{array}{r} \frac{1}{6}(x-4) = \frac{1}{6}(2x+4) \\ \frac{1}{6}x - \frac{4}{6} = \frac{2}{6}x + \frac{4}{6} \\ \frac{1}{6}x - \frac{4}{6} = \frac{2}{6}x + \frac{4}{6} \\ -\frac{1}{6}x \quad -\frac{1}{6}x \\ \hline -\frac{4}{6} = \frac{4}{6} \\ -\frac{4}{6} = \frac{4}{6} \\ -4 = 4 \end{array}$$

**No sol.**

$$12. \begin{array}{r} -3(2x-5) = 0.5(-12x+30) \\ -6x + 15 = -6x + 15 \end{array}$$

**Infinitely many sol.**

Ans 1.-1/2 2.4 3.-1  
4.-3 5.4 6.8 7.3  
8. Inf many sol 9. No sol  
10. No sol 11.-4  
12. Inf many sol

Thursday

**Objective:** Review solving multi-step equations.

**Directions:** Solve the equation. Show all work. If necessary, leave your answer as a simplified improper fraction.

$$1. \begin{array}{r} 7 - 9x = 23 \\ -9x = 16 \\ -9 \quad -9 \\ \hline x = -\frac{16}{9} \end{array}$$

$$2. \begin{array}{r} 2(x-15) = -3(5) \\ 2x - 30 = -15 \\ +30 \quad +30 \\ \hline 2x = 15 \\ \frac{2x}{2} = \frac{15}{2} \\ \boxed{x = \frac{15}{2}} \end{array}$$

$$3. \begin{array}{r} 5x + 10 = 18 \\ -10 \quad -10 \\ \hline 5x = 8 \\ \frac{5x}{5} = \frac{8}{5} \\ \boxed{x = \frac{8}{5}} \end{array}$$

$$4. \begin{array}{r} 8x - 10 = -3x + 2 \\ +3x \quad +3x \\ \hline 11x - 10 = 2 \\ +10 \quad +10 \\ \hline 11x = 12 \\ \frac{11x}{11} = \frac{12}{11} \\ \boxed{x = \frac{12}{11}} \end{array}$$

$$5. \begin{array}{r} -7(x-3) = -4 \\ -7x + 21 = -4 \\ -21 \quad -21 \\ \hline -7x = -25 \\ -7 \quad -7 \\ \hline x = \frac{25}{7} \end{array}$$

$$6. \begin{array}{r} \frac{x}{-5} + \frac{6}{-6} = 31 \\ (-5) \cdot \frac{x}{-5} = 25(-5) \\ \boxed{x = -125} \end{array}$$

$$7. \begin{array}{r} \frac{3}{4}x - 8 = \frac{1}{4}x + 9 \\ -\frac{1}{4}x \quad -\frac{1}{4}x \\ \hline \frac{2}{4}x - 8 = 9 \\ +8 \quad +8 \\ \hline \frac{1}{2}x = 17 \\ \frac{2}{2} \cdot \frac{1}{2}x = \frac{2}{2} \cdot 17 \\ \boxed{x = 34} \end{array}$$

$$8. \begin{array}{r} 3x - 2(x+3) = x \\ 3x - 2x - 6 = x \\ -x - 6 = x \\ -x \quad -x \\ \hline -6 = 0 \end{array}$$

**No sol.**

$$9. \begin{array}{r} 2x - 4 = 6x \\ -2x \quad -2x \\ \hline -4 = 4x \\ \frac{-4}{4} = \frac{4x}{4} \\ \boxed{-1 = x} \end{array}$$

$$10. \begin{array}{r} 2(x-3) = 3(x-1) \\ 2x - 6 = 3x - 3 \\ -2x \quad -2x \\ \hline -6 = x - 3 \\ +3 \quad +3 \\ \hline -3 = x \\ \boxed{x = -3} \end{array}$$

$$11. \begin{array}{r} 3 - \frac{5}{6}x = 2 + \frac{1}{6}x \\ +\frac{5}{6}x \quad +\frac{5}{6}x \\ \hline 3 = 2 + x \\ -2 \quad -2 \\ \hline 1 = x \\ \boxed{x = 1} \end{array}$$

$$12. \begin{array}{r} 2(3x+9) = -3(x+5) - 2x \\ 6x + 18 = -3x - 15 - 2x \\ 6x + 18 = -5x - 15 \\ +5x \quad +5x \\ \hline 11x + 18 = -15 \\ -18 \quad -18 \\ \hline 11x = -33 \\ \frac{11x}{11} = \frac{-33}{11} \\ \boxed{x = -3} \end{array}$$

Ans 1.-2 2.2 3.8/5  
4. 12/11 5.25/7 6.-125  
7.34 8.No sol 9.-1  
10.-3 11.1 12.-3