

20 in 20: Week 1 - July 2<sup>nd</sup>

Ex. 1 Simplify:

$$\begin{aligned} 2 - (-3) \\ 2 + 3 \\ \boxed{5} \end{aligned}$$

Ex. 2 Simplify:

$$\begin{aligned} -4 - 8 \\ \boxed{-12} \end{aligned}$$

Ex. 3 Simplify:

$$\begin{aligned} -10 - (-11) \\ -10 + 11 \\ \boxed{1} \end{aligned}$$

Ex. 4 Reduce:

$$\frac{10 \div 2}{64 \div 2} = \boxed{\frac{5}{32}}$$

Ex. 5 Write as a mixed number:

$$\begin{aligned} \frac{30}{15} \quad 15 \times \underline{2} = 30 \\ 2 \text{ R } 15 \div 3 = \boxed{2 \frac{2}{5}} \end{aligned}$$

Ex. 6 Simplify:

$$\frac{7}{2} + \frac{3}{2} = \frac{10}{2} = \boxed{5}$$

Ex. 7 Simplify:

$$\begin{aligned} \frac{7}{7} \cdot \frac{1}{2} + \frac{1}{7} \cdot \frac{2}{2} \\ \frac{7}{14} + \frac{2}{14} = \boxed{\frac{9}{14}} \end{aligned}$$

Ex. 8 Simplify:

$$\begin{aligned} \frac{9}{9} \cdot \frac{3}{5} - \frac{10}{9} \cdot \frac{5}{9} \\ \frac{27}{45} - \frac{40}{45} = \boxed{\frac{-13}{45}} \end{aligned}$$

Ex. 9 Change to a percent.

$$\begin{aligned} 0.87 \\ \boxed{87\%} \end{aligned}$$

Ex. 10 Change to a percent.

$$\begin{aligned} 0.04 \\ \boxed{4\%} \end{aligned}$$

Ex. 11 Simplify:

$$\begin{aligned} 5(2^2 - 1) + 8 \cdot 4 \cdot 5 \\ 5(3) + 2 \cdot 5 \\ 15 + 10 \\ \boxed{25} \end{aligned}$$

Ex. 12 Simplify:

$$\begin{aligned} 5(\overbrace{6x - 3}) - (\overbrace{8x - 5}) + 6 \\ \boxed{30x - 15} - \boxed{8x + 5} + 6 \\ \boxed{22x - 4} \end{aligned}$$

Ex. 13 Solve the equation:

$$2x + 8 = 11$$
$$-8 \quad -8$$

$$2x = 3$$

$$x = 3/2$$

Ex. 15 Solve the equation:

$$\frac{x+3}{5} = -2$$

$$x+3 = -10$$

$$x = -13$$

Ex. 14 Solve the equation:

$$\frac{1}{4}x - 11 = -5$$

$$\frac{1}{4}x = 6$$

$$x = 24$$

Ex. 16 Solve the equation:

$$2 - 6x = 3x + 29$$

$$-9x = 27$$

$$x = -3$$

Ex. 17 Graph the following points.

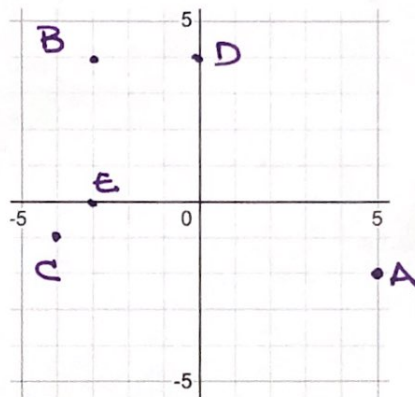
a.  $(5, -2)$

b.  $(-3, 4)$

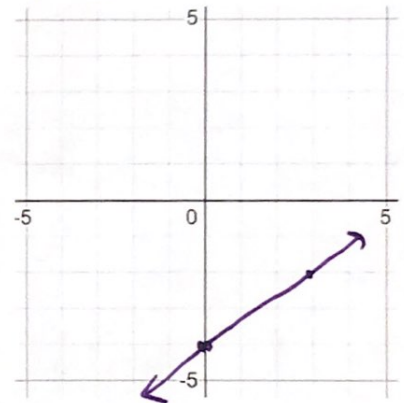
c.  $(-4, -1)$

d.  $(0, 4)$

e.  $(-3, 0)$

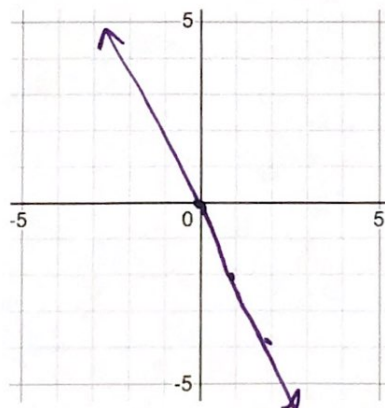


Ex. 18 Graph the line.  $y = \frac{2}{3}x - 4$



Ex. 19  
Graph the line.

$$y = -2x$$



Ex. 20 Solve the system of equations.

$$y = 2x + 5$$

$$y = 6x - 11$$

$$2x + 5 = 6x - 11$$

$$16 = 4x$$

$$x = 4$$

$$y = 2(4) + 5$$

$$y = 13$$

$$(4, 13)$$