

20 in 20: Week 6 - August 6th

Ex. 1 Simplify:

$$\frac{8.8}{2.2} = \boxed{4}$$

Ex. 2 Simplify:

$$\frac{9.5}{.5} = \frac{95}{5} = \boxed{19}$$

Ex. 3 Simplify:

$$(2.5)(4.0) = \boxed{10}$$

Ex. 4 Simplify:

$$(0.15)(.3) = \boxed{.045}$$

Ex. 5 Simplify:

$$\begin{aligned} &(-1\frac{1}{5})(\frac{1}{2}) \\ &(-\frac{6}{5})(\frac{1}{2}) = -\frac{6}{10} = \boxed{-\frac{3}{5}} \end{aligned}$$

Ex. 6 Simplify:

$$\begin{aligned} &(-3\frac{2}{3})(-\frac{5}{3}) \\ &(-\frac{17}{3})(-\frac{5}{3}) = \boxed{\frac{17}{9}} \end{aligned}$$

Ex. 7 Simplify:

$$\begin{aligned} &2\frac{3}{7} \div \frac{5}{4} \\ &\frac{17}{7} \cdot \frac{4}{5} = \boxed{\frac{68}{35}} \end{aligned}$$

Ex. 8 Simplify:

$$\begin{aligned} &\frac{3}{7} + 2\frac{1}{2} \\ &2: \frac{3}{7} + \frac{5}{2} \cdot \frac{7}{7} = \frac{6}{14} + \frac{35}{14} = \boxed{\frac{41}{14}} \end{aligned}$$

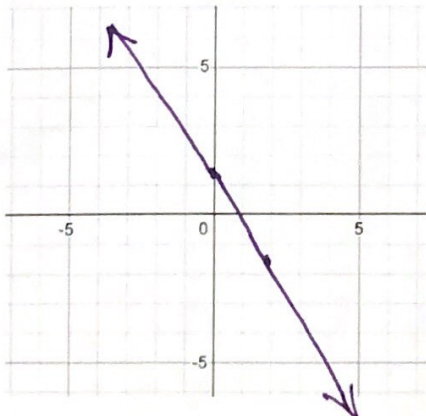
Ex. 9 Simplify:

$$\left(\frac{1}{2}\right)^4 = \boxed{\frac{1}{16}}$$

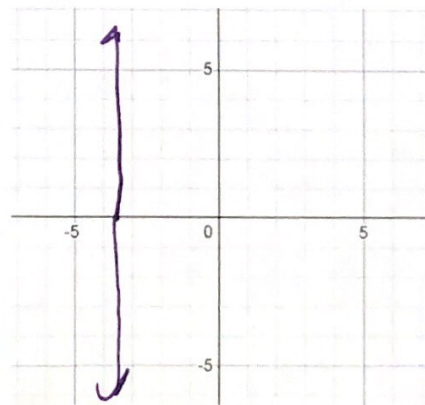
Ex. 10 Simplify:

$$(.3)^2 = \boxed{.09}$$

Ex. 11 Graph: $y = -\frac{3}{2}x + 1.5$



Ex. 12 Graph: $x = -3.5$

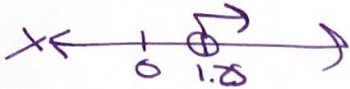


Ex. 13 Solve and graph:

$$4x - 7 > -2$$

$$4x > 5$$

$$x > 5/4$$



Ex. 15 Solve the equation.

$$-4(x-4) + 3(2x-8) = 5x + 1$$

$$-4x + 16 + 6x - 24 = 5x + 1$$

$$-1 = 5x$$

$$x = -1/5$$

Ex. 17 Simplify the expression.

$$(-16 \div 4 \div 2)^3 \cdot 5 \cdot \frac{3}{7} \div 6$$

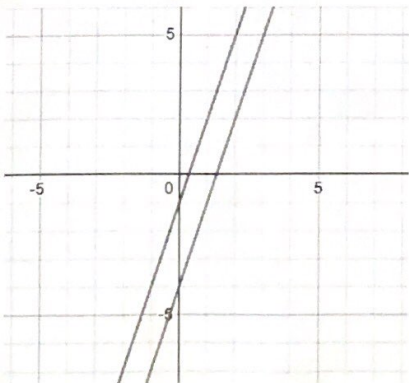
$$-8 \cdot 5 \cdot \frac{3}{7} \div 6$$

$$-40 \cdot \frac{3}{7} \div 6$$

$$\frac{-120}{7} \cdot \frac{1}{6} = \frac{-120}{42} = \frac{-60}{21}$$

$$\boxed{-20/7}$$

Ex. 19 What is the solution to the system of equations?



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Ex. 14 Solve and graph:

$$-1 \leq \frac{2x+8}{5}$$

$$-5 \leq 2x+8$$

$$-13 \leq 2x$$

$$-\frac{13}{2} \leq x$$



Ex. 16 Solve the equation.

$$\frac{3x-4}{2} = -8(6x-1)$$

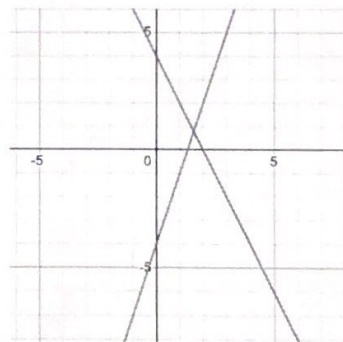
$$3x-4 = -16(6x-1)$$

$$3x-4 = -96x+16$$

$$-20 = -99x$$

$$x = 20/99$$

Ex. 18 Approximate the solution to the system of equations?



~~(1.5, 9)~~
(1.5, 9)

Ex. 20 Solve the system of equations.

$$y = 3x - 1$$

$$2x - 3y = 9$$

$$2x - 3(3x - 1) = 9$$

$$2x - 9x + 3 = 9$$

$$-7x = 6$$

$$x = -6/7$$

$$y = -18/7 - 1 \quad y = -25/7$$

$\left(-\frac{6}{7}, -\frac{25}{7}\right)$