

1. Rewrite the following equations so that there are no fractions.

(a) $\frac{1}{5}x + \frac{4}{9}y = \frac{2}{15}$

(b) $\frac{2}{3}x - \frac{8}{5}y = \frac{7}{30}$

(c) $\frac{3}{4}x + \frac{5}{3}y = -\frac{3}{8}$

(d) Which pair of the above equations forms a system that has no solution? Explain your answer.

2. Solve the following systems of equations by graphing and check your answers using an algebraic method.

(a) $2x - y = -5, \quad 3x + y = -5$

(b) $3x - y = 12, \quad 3x + 2y = 21$

(c) $8x - 10y = -7, \quad 4x + 2y = -7$

3. Find a system of 2 linear equations that has the solution $(1, -2)$. Show that the solution is correct by graphing. Both equations must include an x term and a y term.