

Writing Linear Equations in Standard Form

Standard Form:
 $Ax + By = C$

Rules

- A, B, and C must all be integers.
- A has to be positive
- The GCF (Greatest Common Factor) of A, B, and C must = 1

Strategies:

It can be as easy as using Properties of Equality to get all the terms in their proper place.

Ex/

$$\begin{array}{r} 3y = -5x + 7 \\ +5x \quad +5x \\ \hline 5x + 3y = 7 \end{array}$$

BUT

There may be times when we have to deal with fractions first



$$\begin{array}{r} 2y = -\frac{3}{5}x + 4 \\ 5 \left[2y = -\frac{3}{5}x + 4 \right] \\ 10y = -3x + 20 \\ +3x \quad +3x \\ \hline 3x + 10y = 20 \end{array}$$

Write each equation in proper Standard Form. Show all algebraic work, use your notebook if you need more room.

1. $-2x + y = 6$

2. $y = x - 7$

3. $-3x = 5 - 10y$

4. $-2x + 8y = -14$

5. $y = \frac{2}{3}x - \frac{5}{3}$

6. $7x = -8y$

7. $y = \frac{2}{3}x - \frac{5}{3}$

8. $-2y = 8x - 7$

9. $8y - 2 = 2x$

10. $6y = -4x - 2$

11. $y = -\frac{1}{4}x$

12. $3y = 15x + 6$

13. $y = \frac{3}{2}x + 7$

14. $y = \frac{1}{6}x + \frac{1}{2}$

15. $60x - 40 = 5y$

16. $y = 3x + \frac{2}{7}$

17. $-\frac{3}{4}x + \frac{5}{6}y = \frac{1}{2}$

18. $-\frac{2}{3}x - \frac{5}{2}y = 4$