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/

$$3y = -5x + 7$$
$$+5x \quad + 5x$$
$$5x + 3y = 7$$

BUT

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

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

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

6. $7x = -8y$

7. $\dfrac{4}{5}x = \dfrac{1}{3}y - 5$

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

9. $8y - 2 = 2x$

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

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

12. $3y = 15x + 6$

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

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

15. $60x - 40 = 5y$

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

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

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