


1.13 TWO-STEP EQUATIONS



Steps:

- Undo addition and subtraction first
 - *To remove constant term*
- Then undo multiplication and division
 - *To remove coefficient*
- If fractions are involved:
 - *To "get rid" of a fraction, multiply by the reciprocal*

Examples with fractions

- $\frac{2}{3}x = 10$

$$\frac{4}{9}w = -8$$

- $-\frac{6}{5}k = 12$

$$-\frac{1}{2}m = -9$$

Two step examples

- $6x + 8 = 50$

$$2n - 5 = 11$$

- $13 = -4k + 9$

$$7 - 3y = 34$$

More...

$$\underline{x} - 7 = 9$$

2

$$11 = \underline{c} + 8$$

-5

More...

$$\underline{3}x + 22 = 28$$

5

$$\underline{-1}m + 1 = -7$$

3

...

$$-10 + \frac{7p}{4} = -38$$

$$15 = 9 - \frac{1x}{2}$$

WATCH OUT!

$$\frac{x+11}{8} = -3$$

8

$$\frac{n-5}{-2} = -7$$

-2

***These examples are different in that the multiplication/division is done first, followed by the addition/subtraction. ***

Examples

$$1 = \frac{a - 13}{-6}$$

-6

$$4 = \frac{w + 8}{9}$$

9