- we want to **isolate the variable** by using the inverse operation
  (+ and − ; × and ÷) ⤷ the variable (letter) needs to be alone
- solving equations is like a balance scale because
  whatever you do to one side, you must do to the other side
- show steps on **BOTH SIDES** of the equation
- box answers; check your solution (mentally ok)
- never move the variable; move the number with the variable away

Multiplication Examples:

1) $\dfrac{5d}{-5} = \dfrac{35}{-5}$

$\boxed{d = -7}$

> * if the variable is being multiplied, you divide by the same **coefficient**
>
> * use a **fraction bar** to show division

2) $\dfrac{-16}{4} = \dfrac{4h}{4}$

$\boxed{-4 = h}$

3) $\dfrac{-20}{-5} = \dfrac{-5m}{-5}$

$\boxed{4 = m}$

10) $\dfrac{24}{-5} = \dfrac{-5m}{-5}$

$-4.8 = m$

4) $\dfrac{8t}{-8} = \dfrac{-12}{-8}$

$\boxed{t = 1.5 \text{ or } 1\tfrac{1}{2}}$

5) $\dfrac{-6p}{-6} = \dfrac{72}{-6}$

$\boxed{p = -12}$

6) $\dfrac{1.5}{3.3} = \dfrac{3.3y}{3.3}$

$\boxed{0.45 = y}$

7) $\dfrac{-14k}{-14} = \dfrac{-21}{-14}$

$\boxed{k = 1.5}$

8) $\dfrac{5}{2} \cdot \dfrac{2}{5} y = 8 \cdot \dfrac{5}{2} = \dfrac{40}{2}$

$\boxed{y = 20}$

9) $\dfrac{3}{1} \cdot \dfrac{1}{3} n = 12 \cdot \dfrac{3}{1}$

$\boxed{n = 36}$

> if the coefficient is a fraction, **multiply by the reciprocal**