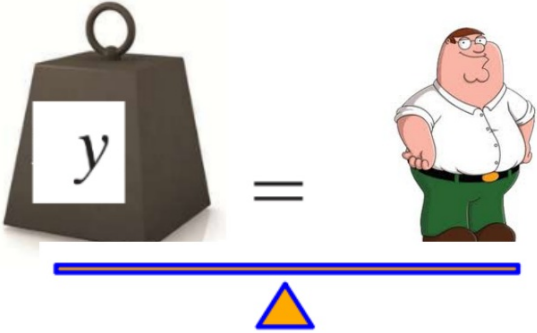
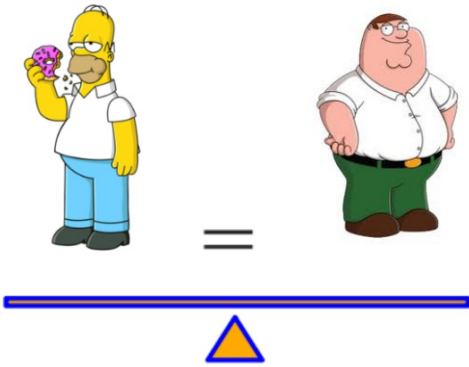
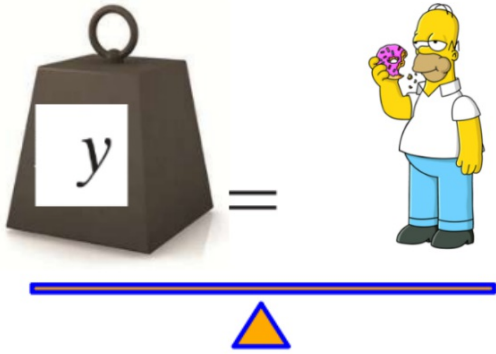


Solving Systems Using Substitution

What can we conclude?



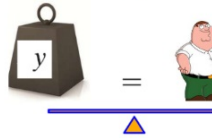
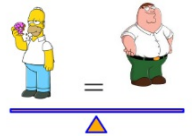
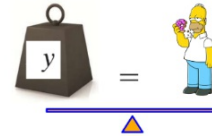
Solving Systems Using Substitution

What can we conclude?

$$y = x + 7$$



$$y = -4x + 8$$



$$x + 7 = -4x + 8$$



$$x + 7 = -4x + 8$$

Solve the system using substitution.

$$y = \underline{4(2)} + 2 = 10$$

$$2x + y = 14$$

$$\rightarrow 2x + 4x + 2 = 14$$

$$6x + 2 = 14$$

$$6x = 12$$

$$x = 2$$

$$y = 10$$

$$(2, 10)$$



Farmer Emilio has 27 animals on his farm.

He only has cows and chickens.

The animals have a total of 68 legs.

How many of each animal does he have?

K - Know	W - Want to know	L earn
27 animals Chickens: K Cows: C 68 legs Cows have 4 legs Chickens have 2 legs	How many cows How many chickens	$C + K = 27$ $4C + 2K = 68$ 7 cows 20 chickens

Farmer Emilio has 27 animals on his farm.
He only has cows and chickens.
The animals have a total of 68 legs.
How many of each animal does he have?

$$\begin{aligned} C + K &= 27 \rightarrow K = \underline{-C + 27} \\ 4C + 2K &= 68 \\ 4C + 2(-C + 27) &= 68 \end{aligned}$$

**DJ Emilio has 32 Albums.
Some are CD's. Some are Vinyl.
CD's cost \$10. Vinyl costs \$15.
He spent a total of \$435.**

How many CD's did he buy?



**DJ Emilio has 32 Albums.
Some are CD's. Some are Vinyl.
CD's cost \$10. Vinyl costs \$15.
He spent a total of \$435.**

How many CD's did he buy?

$$\begin{aligned}C + V &= 32 \\V &= \underline{-C + 32} \\10C + 15V &= 435 \\10C + 15(\underline{-C + 32}) &= 435 \\C &= 9\end{aligned}$$

$$\begin{aligned}10C - 15C + 480 &= 435 \\-5C + 480 &= 435\end{aligned}$$

$$\begin{aligned}\frac{-5C}{-5} &= \frac{-45}{-5}\end{aligned}$$

$$C = 9$$

**Banker Emilio has 24 coins in his pocket.
He only has dimes and nickels.
They total \$1.35.
How many dimes does he have?**