

COUNTDOWN Challenge

• Guess & Check vs Simultaneous Equations •

Which do you prefer?

There are many different strategies we can use to solve problems. Each of the following problems have 2 variables. Review our sample, then decide which strategy you like best!

1. Marcus sold small and large boxes of candy. A small box cost \$3. A large box cost \$5. Marcus sold 50 boxes of candy and collected \$180. How many of each size boxes did he sell?

Simlutaneous Equation Startegy

Equation # 1

$$x + y = 50$$

or

$$y = 50 - x$$

Equation # 2

$$3x + 5y = 180$$

Simultaneous Equations

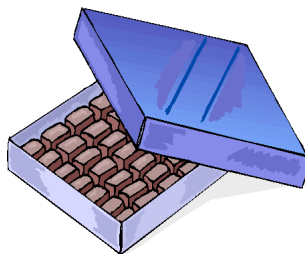
(Eliminate y. Substitue $y = 50-x$)

$$3x + 5(50 - x) = 180$$

$$3x + 250 - 5x = 180$$

$$-2x = ?$$

Once we find the value of x, how will we solve y?



Guess & Check Startegy

Guess #1

25 small boxes

25 large boxes

$$(25+25 = 50)$$

$$\$3(25) + \$5(25) = \$200$$

Guess #2

20 small boxes

30 large boxes

$$(20 + 30 = 50)$$

$$\$3(20) + \$5(30) = ?$$

Have we solved the problem with these two guesses?

2. Marcus sold small and large boxes of candy. A small box cost \$3. A large box cost \$5. Marcus sold 50 boxes of candy and collected \$160. How many of each size boxes did he sell?

3. Marcus has 7 cards worth \$25 total. He has \$5 cards and \$3 cards. How many of each card does Marcus have?

Hooray for Marcus...he used different strategies to solve his problems!