

Digits 6-3

Solving Systems by Graphing

1/17/2020

①

Goal: I will be able to solve a system by graphing.

Food Bag
Formulas, equations
Vocabulary, etc.

Here's How... Notes & Examples

Example 8th grade class wants to make money

	Prof. t
Caps	\$10
T-shirts	\$5

Make \$600

④

Up a Noch!

Day 1: Sell 18 items
make \$125

$$c + t = 18$$

$$10c + 5t = 125$$

$c = \text{caps}$
 $t = \text{shirts}$

c	t	c + t = 18	t
0	18	18	0
18	0	18	0

c	t	10c + 5t = 125	t
0	25	125	0
12.5	0	125	0

②

How much do they make if they sell

a) 15 shirts and 10 caps
 $\text{profit} = 15(5) + 10(10)$
 $= 75 + 100$
 $= 175$

b) 30 shirts and 50 caps
 $P = 30(5) + 50(10)$
 $= 150 + 500$
 $= 650$

⑤

11 shirts ; 7 caps

$$c + t = 18$$

$$7 + 11 = 18$$

$$18 = 18 \text{ true}$$

$$10c + 5t = 125$$

$$10(7) + 5(11) = 125$$

$$70 + 55 = 125$$

$$125 = 125 \text{ true}$$

Solving by Graphing

You graph the 2 equations, where they intersect is the solution

③

Profit = $10 \cdot \text{caps} + 5 \cdot \text{shirts}$

$c = \text{caps}$
 $t = \text{shirts}$

How many caps & shirts do they need to sell to make \$600?

$$600 = 10c + 5t$$

c	t	600 = 10c + 5t	t
60	0	600	0
0	125	600	125