

Name:

ANSWERS!

Class:



Communication



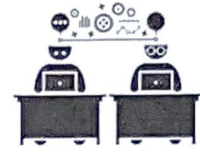
Successful Partnership



Encouragement



Solving Problem Together



Collaboration

Question 01

Alexia and Binta each bought sweatshirts and t-shirts at a concert. Each sweatshirt cost the same amount, and each t-shirt cost the same amount.

- Alexia paid \$45 for 1 sweatshirt and 2 t-shirts.
- Binta paid \$195 for 4 sweatshirt and 10 t-shirts.

sweatshirts =  $x$   
 T-shirts =  $y$

$$x + 2y = 45$$

easy-ish to solve for  $x$

$$\rightarrow x = -2y + 45$$

$$4x + 10y = 195$$

$$4(-2y + 45) + 10y = 195$$

$$-8y + 180 + 10y = 195$$

$$2y + 180 = 195$$

$$2y = 15$$

$$y = 7.50$$

$$x + 2y = 45$$

$$x + 2(7.5) = 45$$

$$x + 15 = 45$$

$$x = 30$$

Cost of 1 sweatshirt:

\$30.00

Cost of 1 t-shirt:

\$7.50

Question 02

Chip and Dalia each bought bonbon candies and mini cakes at a bakery. Each bonbon candy cost the same amount, and each mini cake cost the same amount.

bonbon =  $x$   
minicake =  $y$

• Chip paid \$10 for 4 bonbon candies and 2 mini cakes.

• Dalia paid \$5.75 for 3 bonbon candies and 1 mini cake.

$$4x + 2y = 10$$

$$3x + y = 5.75 \rightarrow \text{easy-ish to solve for } y$$

$$\rightarrow y = -3x + 5.75$$

$$4x + 2(-3x + 5.75) = 10$$

$$4x - 6x + 11.50 = 10$$

$$-2x = -1.5$$

Cost of 1 bonbon candy:

$$x = \$0.75$$

$$3x + y = 5.75$$

$$3(0.75) + y = 5.75$$

$$2.25 + y = 5.75$$

Cost of 1 mini cake:

$$y = \$3.50$$

Question 03

Jed and Nevaeh each bought postcards and keychains at a tourist stand. Each postcard cost the same amount, and each keychain cost the same amount.

• Jed paid \$4.35 for 5 postcards and 1 keychain.

• Nevaeh paid \$4.50 for 3 postcards and 2 keychains.

postcard =  $x$   
keychain =  $y$

$$5x + y = 4.35 \rightarrow \text{easy-ish to solve for } y$$

$$3x + 2y = 4.50$$

$$\rightarrow y = -5x + 4.35$$

$$3x + 2(-5x + 4.35) = 4.50$$

$$3x - 10x + 8.7 = 4.5$$

$$-7x = -4.2$$

Cost of 1 postcard:

$$\$0.60$$

$$5x + y = 4.35$$

$$5(0.6) + y = 4.35$$

$$3 + y = 4.35$$

Cost of 1 keychain:

$$\$1.35$$