

**ALGEBRA II**  
**Chapter 3 section 4**  
**Solve Systems of Linear Equations in Three Variables**  
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**FOCUS:**

How do you solve a system of linear equations in three variables?

**VOCAB:**

*Linear equation in three variables:* \_\_\_\_\_

\_\_\_\_\_

*System of three linear equations:* \_\_\_\_\_

\_\_\_\_\_

*Solution of a system of three linear equations:* \_\_\_\_\_

\_\_\_\_\_

*Ordered Triple:* \_\_\_\_\_

\_\_\_\_\_

**WARM – UP:**

Solve by substitution.

$$x + 2y = -1$$

$$3x - y = 18$$

Solve by elimination.

$$3x + 4y = -25$$

$$3x - 2y = -1$$

At a local store, 4 rolls of film and 2 batteries cost \$20.70. At another store, 6 rolls of film and 1 battery cost \$30.15. What is the price of one roll of film?

**NOTES:**

Solve the system.

$$2x - y + 6z = -4$$

$$6x + 4y - 5z = -7$$

$$-4x - 2y + 5z = 9$$

$$\begin{aligned}x + y - z &= 2 \\3x + 3y - 3z &= 8 \\2x - y + 4z &= 7\end{aligned}$$

$$\begin{aligned}x + y + z &= 6 \\x - y + z &= 6 \\4x + y + 4z &= 24\end{aligned}$$

At a carry - out pizza restaurant, an order of 3 slices of pizza, 4 breadsticks, and 2 juice drinks costs \$13.35. A second order of 5 slices of pizza, 2 breadsticks, and 3 juice drinks costs \$19.50. If four breadsticks and a juice drink cost \$0.30 more than a slice of pizza, what is the cost of each item?

Let's see if you comprehended what we worked on in class...

Try \_\_\_\_\_ for homework