

Objective: Students can identify the structure of an algebraic expression and equation with proper vocabulary. Students can interpret the context of an algebraic expression and equation.

Mixing Candies

A candy shop sells a box of chocolates for \$30. It has \$29 worth of candy plus \$1 for the box. The box includes two kinds of candy: caramels and truffles. Lita knows how much the different types of candies cost per pound and how many pounds are in a box.

She said, "If x is the number of pounds of caramels included in the box and y is the number of pounds of truffles in the box, then I can write the two equations below based on what I know about one of these boxes."

$$x + y = 3$$

$$8x + 12y + 1 = 30$$

Assuming Lita used the information given and her other knowledge of the candies, use her equations to answer the following:

1. How many pounds of candy are in the box?

3

2. What is the price per pound of the caramels?

8 dollars

3. What does the variable "y" in the equations represent?

pounds of truffles

4. What does " $8x+12y$ " in the second equation represent in context?

total cost of caramels and truffles

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Movie Theater

$$8.50t + 5.50p + 4.50s + 2.35 = 43.35$$

Name the following:

Constant(s): 2.35, 43.35

Coefficient(s): 8.50, 5.50, 4.50

Variable(s): t, p, s

Term(s): 8.50t, 5.50p, 4.50s, 2.35, 43.35

What does 43.35 represent? total money spent at the theater

What does 8.50 represent? cost of a ticket

What does 5.50p represent? total cost of popcorn

What does the s represent? # of sodas

What might the 2.35 represent? tax, service fee, parking

What does 5.50p+4.50s represent? total cost of popcorn and soda.