

Activity 7 Assessment

Evaluating Algebraic Expressions

Evaluating Algebraic Expressions

Chooses variables to write an algebraic expression

I am buying 5 plantains, 1 duck, 6 cobs of corn, and 3 mangos.

Let p represent the cost of a plantain, d represent the cost of a duck, c represent the cost of a cob of corn, and m represent the cost of a mango.

The expression that describes the cost of the items on my shopping list is:

$$5p + d + 6c + 3m$$

Substitutes for the variables in an algebraic expression

$$5p + d + 6c + 3m$$

I used the prices from the Food for All store.

The cost in dollars is:

$$5(0.54) + 9.99 + 6(0.79) + 3(1.50)$$

Uses number properties to evaluate an algebraic expression

Use the order of operations: cost in dollars is

$$\begin{aligned} &5(0.54) + 9.99 + 6(0.79) + 3(1.50) \\ &= 2.70 + 9.99 + 4.74 + 4.50 \\ &= 21.93 \end{aligned}$$

Solves problems involving algebraic expressions

I am trying to buy at least 4 different kinds of items from Great Foods and want to spend close to but not more than \$30. I'll try 1 mango, 2 ducks, 2 bok choy, and 4 corn:

$$1m + 2d + 2b + 4c$$

Substituting prices from the list, I get

$$1(1.49) + 2(8.75) + 2(3.49) + 4(0.75) = 28.97$$

I can add 1 more corn and still be below \$30.

Observations/Documentation