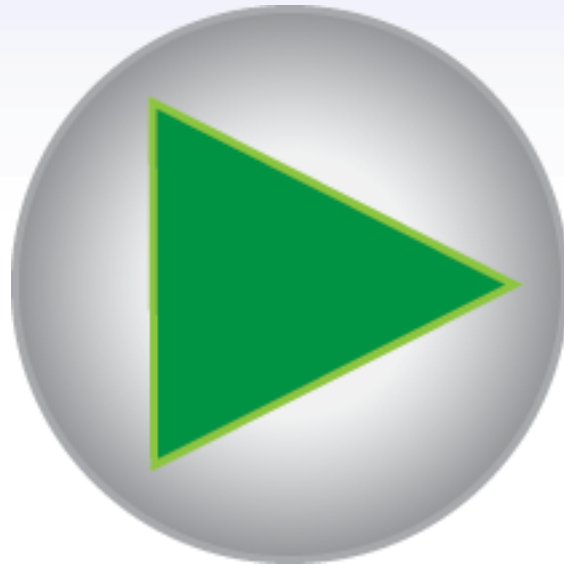


# Check it out!



Read the scenario and answer the questions that follow.

Andrew is practicing for a tennis tournament and needs more tennis balls. He bought 10 cans of tennis balls online and received a 25% discount. The shipping cost was \$5.99. Let  $x$  represent the cost of each can.

1. Write an algebraic expression to represent the cost of the tennis balls before taxes and shipping.
2. Write an algebraic expression to represent the cost of the tennis balls with the discount, and simplify your expression.
3. Write an algebraic expression to represent the total cost of the tennis balls with the shipping cost and the discount. Simplify the expression.



1. Write an algebraic expression to represent the cost of the tennis balls before taxes and shipping.
  - Andrew purchased 10 cans of tennis balls at an unknown price,  $x$ . Therefore, the expression to represent the cost of the tennis balls is  $10x$ .



2. Write an algebraic expression to represent the cost of the tennis balls with the discount, and simplify your expression.

- First, Andrew will be charged the cost of the tennis balls ( $10x$ ).
- Then, 25% will be discounted or taken off the cost of the tennis balls, so  $-0.25(10x)$ .
- Add these amounts to arrive at the price of the tennis balls.



$$10x - 0.25(10x)$$

Write the expression.

$$10x - 2.5x$$

Multiply 0.25 and 10x.

$$7.5x$$

Combine like terms.

- The algebraic expression that represents the price of the tennis balls is  $7.5x$ .

3. Write an algebraic expression to represent the total cost of the tennis balls with the shipping cost and the discount. Simplify the expression.
- The shipping cost was \$5.99. Add this to the expression found in problem 2.
  - The algebraic expression that represents the total cost of the tennis balls including the shipping cost and the discount is  $7.5x + 5.99$ .