

Evaluating Equations with Variables

A local fair is opening soon, and you would like to buy tickets to it for you and friends. The price for tickets is given by this following expression:

$2 + 5x$, where x is the number of tickets that you want to buy.

How much does it cost to buy 1 ticket? 3 tickets? 5 tickets? 10 tickets?

As the problem states, x is the number of tickets that you would want to buy, meaning that we will replace our variable x with the number of tickets we want to buy.

For 1:

Substituting 1 for x :

$$2 + 5(1)$$

Replace $5 * 1$ with its product:

$$2 + 5$$

Add the remaining 2 numbers together:

$$7 \text{ (There's nothing else we can do, so we're done!)}$$

For 3:

Substituting 3 for x :

$$2 + 5(3)$$

Replace $5 * 3$ with its product:

$$2 + 15$$

Add the remaining 2 numbers together:

$$17 \text{ (There's nothing else we can do, so we're done!)}$$

For 5:

Substituting 5 for x :

$$2 + 5(5)$$

Replace $5 * 5$ with its product:

$$2 + 25$$

Add the remaining 2 numbers together:

$$27 \text{ (There's nothing else we can do, so we're done!)}$$

For 10:

Substituting 10 for x :

$$2 + 5(10)$$

Replace $5 * 10$ with its product:

$$2 + 50$$

Add the remaining 2 numbers together:

52 (There's nothing else we can do, so we're done!)