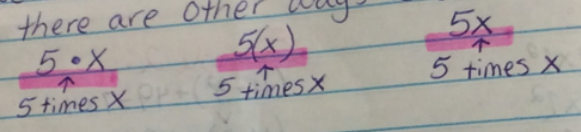


Ch. 6 L.3
Pg 450
6.EE.2
6.EE.6

Evaluate One-Step Expressions:

Algebraic Expressions contain at least one variable and at least one operation.
ex. $n+2$ represents the sum of an unknown number (n) and two.
* ANY letter can be used as a variable.*

The letter **X** is often used AS a variable. To avoid confusion with the multiplication symbol \times , there are other ways to show times:



* The variable in an expression can be replaced with any number, then evaluate, or solve the algebraic expression.*

Ex. 1

Evaluate $16 + b$
if $b = 25$

- 1) rewrite $\rightarrow 16 + 25$
- 2) solve \rightarrow 41

Ex. 2

Evaluate $x - y$ if $x = 64$ and $y = 27$

- 1) rewrite $\rightarrow 64 - 27$
- 2) solve \rightarrow 37

Ch. 6 L.3
Cont...

Evaluate Two-Step Algebraic Expressions:

* To solve or evaluate multi-step algebraic expressions, replace each variable with the correct value and follow the Order of Operations (PEMDAS).*

Evaluate Each Expression if $a = 9$ and $b = 3$.

1. $3b - 4a$
 rewrite $\rightarrow 3 \cdot 3 - 4 \cdot 9$
 PEMDAS $\rightarrow 9 - 4 \cdot 9$
 PEMDAS $\rightarrow 9 - 36$
-27

2. $a^2 - 2b^2$
 rewrite $\rightarrow 9^2 - 2 \cdot 3^2$
 PEMDAS $\rightarrow 9 \cdot 9 - 2 \cdot 3 \cdot 3$
 $81 - 2 \cdot 3 \cdot 3$
 PEMDAS $\rightarrow 81 - 2 \cdot 9$
 $81 - 18$
 PEMDAS \rightarrow 63

3. $b^2 + 5a - 20$
 rewrite $\rightarrow 3^2 + 5 \cdot 9 - 20$
 PEMDAS $\rightarrow 9 + 5 \cdot 9 - 20$
 PEMDAS $\rightarrow 9 + 45 - 20$
 PEMDAS $\rightarrow 54 - 20$
34