

2-3

## Solving Multi-Step Equations

involving more than one operation

Multi-Step equations include two or more operations.  
To solve a multi-step equation, "UNDO" the operations in  
REVERSE of the order of operation!

Example 1:  $2x + 11 = 3$  **PEMDAS**

Example 2:  $\frac{k+9}{12} = -2$  **PEMDAS**

Example:  $-3 = 2 + \frac{a}{11}$  **PEMDAS**

Example 3 Write an equation and solve:

Susan had a \$10 coupon for the purchase of any item. She bought a coat that was on sale of half its original price. After using the coupon, Susan paid \$125 for the coat before taxes. What was the original price of the coat?

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**Consecutive integers are integers in counting order, such as 1, 2, 3, . . . or -4, -3, -2. If  $n$  is the first integer,  $n+1$  is the next consecutive integer.**

Type	Words	Symbols	Example
Consecutive Integers	Integers in Counting order	$n, n+1, n+2, \dots$	$\dots, -1, 0, 1, 2, 3, \dots$
Consecutive Even Integers	Even integer followed By the next even in integer	$n, n+2, n+4$	$\dots, -2, 0, 2, 4, \dots$
Consecutive Odd Integers	Odd integer followed by the next odd integer	$n, n+2, n+4$	$\dots, -1, 1, -3, -5$

Example 3:

Find three consecutive odd integers with a sum of 57.

Start by defining the first integer:

And define the second integer:

And define the third integer:

Now write an equation using your defined integers and solve





