

## Adding Integers with the Same Signs

To add integers with the same sign, **ADD** their absolute values.

Give the result the same sign as the integers.

## Adding Integers with the Same Signs

Positive + Positive = Positive Answer

Negative + Negative = Negative Answer

## Adding Integers with the Same Signs

$$\#1.) -2 + -4 = -6$$

$$\#2.) +9 + +7 = 16$$

$$\#3.) -11 + -18 = -29$$

$$\#4.) -27 + (-43) = -70$$

## Adding Integers with Different Signs

To add integers with different signs, **SUBTRACT** their absolute values.

Give the result the same sign as the integer with the greater absolute value.

## Adding Integers with Different Signs

$$\#1.) -9 + 15 = 6$$

$$\#2.) 7 + (-10) = -3$$

$$\#3.) -48 + 33 = -15$$

$$\#4.) 67 + (-43) = 24$$

Examples: Solve each expression.

$$10 + 22 + (-7) + (-31)$$

$$32 + (-7) + (-31)$$

$$25 + (-31)$$

$$-6$$

Examples: Solve each expression.

$$\begin{aligned} & 26 + (-5) + (-11) \\ & \underline{21} + (-11) \\ & 10 \end{aligned}$$

Examples: Solve each expression.

$$\begin{aligned} & -17 + 36 + (-45) \\ & \underline{19} + (-45) \\ & -26 \end{aligned}$$

Examples: Solve each expression.

$$\begin{aligned} & \underline{47 + 32} + (-16) \\ & \underline{79 + (-16)} \\ & \quad \underline{63} \end{aligned}$$

Examples: Solve each expression.

$$\begin{aligned} & \underline{-11 + 10} + (-7) + 9 \\ & \underline{-1 + (-7)} + 9 \\ & \quad \underline{-8 + 9} \\ & \quad \quad \underline{1} \end{aligned}$$

Examples: Solve each expression.

$$28 + (-56) + 32 + (-75)$$

$$-28 + 32 + (-75)$$

$$4 + (-75)$$
$$-71$$

## Combining Like Terms

**Terms** - the parts that are being added or subtracted

**Coefficient** - the number in front of the variable

**Like Terms** - MUST have the same variable(s)

For Example:  $5y$  &  $-3y$  ✓       ~~$2y$  &  $9x$~~

**Constant Terms** - numbers without variables

Simplify each expression:

$$21y + (-30y) + 15y$$

$$-9y + 15y$$

$$6y$$

Simplify each expression:

$$67m + (-52m) + (-34m)$$

$$15m + (-34m)$$

$$-19m$$

Simplify each expression:

$$-4x + (-8x) + (-41x)$$

$$-12x + (-41x)$$

$$-53x$$

Simplify each expression:

$$5x + (-21x)$$

$$-16x$$



Simplify each expression:

$$\underline{-12y + 5y}$$

$$\underline{-7y}$$

Simplify each expression:

$$\underline{16d + (-9d) + (-27d)}$$

$$7d + (-27d)$$

$$\underline{-20d}$$

Simplify each expression:

$$\underbrace{-4f + (-6f)} + (-19f)$$

$$\underbrace{-10f + (-19f)}$$

$$\textcircled{-29f}$$

Simplify each expression:

$$\underbrace{-14g + (-15g)} + 26g + 7$$

$$\underbrace{-29g + 26g} + 7$$

$$\textcircled{-3g + 7}$$

## Attachments

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2.4 More on Adding Integers and Combining Like Terms.notebook

2.4 Simplifying Expressions with Like Terms.notebook