

Adding Integers

There are two different scenarios where we will use different rules to add integers.

<p>Adding Integers with the same signs</p>	<p>① Add their absolute values ② Give sum the same sign as the addends.</p>
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Example:

1. Determine if they have the same sign

$$-16 + -27 =$$

Both negative

2. Add their absolute values.

$$|-16| + |-27| =$$

3. Give sum the same sign as the addends

$$-16 + -27 =$$

Examples:

1. $56 + 13 = 69$

3. $-83 + -119 =$
 $| -83 | + | -119 | = -202$

2. $-43 + -19 =$

$$|-43| + |-19| =$$

$$43 + 19 = 62$$

↑
same sign as the addend.

4. $74 + 337 = 411$

Adding Integers with the different signs

- ① Subtract their absolute values
- ② Give result the same sign as the integer with greater absolute value

Example:

1. Determine if signs are different

$$-35 + 17 =$$

2. Subtract their absolute values

$$|-35| + |17| =$$

$$35 - 17 = 18$$

3. Determine the greater value & use that sign

$$|-35| > |17|$$

Examples:
 ← in affect you are subtracting 14 from 25.

1. $25 + (-14) =$
 $|25| - |14| = \boxed{11}$
25 is greater than

3. $-115 + 54 =$
 $|-115| - |54| =$
 $115 - 54 = \boxed{-61}$

2. $-56 + 210 =$
 $|210| - |56| = \boxed{154}$

4. $87 + (-35) =$
 $|87| - |-35| =$
 $87 - 35 = \boxed{52}$

To add more than two integers, follow these steps.

1. Add all of the positive integers.
2. Add all of the negative integers.
3. Add these two sums together using the rules.