



Combining terms with positive and negative numbers can be visually shown using positive and negative counters.

<p><u>3</u> - <u>6</u></p> <p>  </p> <p>3 - 6 = -3</p> <p>Positive 3 and Negative 6 combine to negative 3.</p> <p>Positive 3 minus 6 equals negative 3.</p>	<p><u>-5</u> + <u>4</u></p> <p>  </p> <p>-5 + 4 = -1</p> <p>Negative 5 and positive 4 combine to negative 1.</p> <p>Negative 5 plus 4 equals negative 1.</p>
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Skill Development

Step 1

Identify the terms: positive or negative.

Step 2

Draw positive (+) and negative (-) counters for each term.

Step 3

Combine the terms.

1a. **3 - 7**

2a. **2 - 4**

1b. **-3 + 2**

2b. **-5 + 7**

1c. **-4 - 4**

2c. **-3 - 2**

Combining terms with positive and negative numbers can be done quickly using the following processes:

<p>If the terms have different signs then</p> <p>1. Subtract the values. 2. Keep the sign of the "greatest" value.</p> <p>10 - 25 = -15 "different signs"</p> <p>1. Subtract the values. "25 - 10 = 15"</p> <p>2. Keep the sign of the "greatest" value. "Keep the negative, because the negative value is the greatest."</p>	<p>If the terms have the same sign then</p> <p>1. Add the values. 2. Keep the sign.</p> <p>-10 - 40 = -50 "same signs, negative"</p> <p>1. Add the values. "10 + 40 = 50"</p> <p>2. Keep the sign. "Keep the sign negative."</p>
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Skill Development

Step 1
Determine which process to use.

Step 2
Combine the terms.

Different Signs: Subtract and keep "greatest" sign.

Same Signs: Add and keep the sign.

3a. **10 - 25**

4a. **-10 + 15**

3b. **-20 + 30**

4b. **-20 - 25**

3c. **-10n - 10n**

4c. **10r - 30r**

Step 1

Determine which process to use.

Step 2

Combine the terms.

Different Signs: Subtract and **keep “greatest” sign.**

Same Signs: Add and **keep the sign.**

$$5. -10x + 12x - 15x + 4$$

$$6. -12x + 11 - 9x - 8$$

Extended Thinking

Read and solve the following problems.



Enter the value of

$$-14 + 9 - 7$$



Enter the value of

$$-5 - 8n + 2 - 3n$$

I learned that ...