1. Read the problem **TWICE** word by word to get the ‘big picture’.
2. **READ** the problem slowly again - one sentence at a time.
3. **UNDERLINE** or **WRITE OUT** the values that are given.
4. **WRITE OUT** what the problem is asking you to calculate.
5. Draw a **PICTURE** or **DIAGRAM** to help you visualize and understand the problem.
6. **SELECT THE FORMULA(E)** that best represent the values given and the values to be calculated.
7. Work through the problem using the formula(e) to **FIND THE ANSWER**.
8. **CHECK** your answer!

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**KEY WORD ALTERNATIVES**

<table>
<thead>
<tr>
<th>Operation</th>
<th>Alternative Words</th>
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<tbody>
<tr>
<td>Addition</td>
<td>increased by, more than, combined, together, total of, sum, plus, added to</td>
</tr>
<tr>
<td>Subtraction</td>
<td>decreased by, minus, less, difference between/of, less than, fewer than</td>
</tr>
<tr>
<td>Multiplication</td>
<td>Of, times, multiplied by, product of, increased/decreased by a factor of (this type can involve both addition or subtraction and multiplication!)</td>
</tr>
<tr>
<td>Division</td>
<td>per, a, out of, ratio of, quotient of, percent (divide by 100)</td>
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<tr>
<td>Equals</td>
<td>is, are, was, were, will be, gives, yields, sold for</td>
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</table>
Example:
Gina built a rectangular stone terrace in her garden. The terrace is 24 feet long and 18 feet wide. She wants to put a brick border around the terrace. How many feet of bricks does she need?

SOLUTION

Step 1 and 2: to get the big picture and to break down the question.

Step 3. Given: \( l = 24 \, ft, w = 18 \, ft \)

4. To Calculate: Length of the brick border around the terrace.
   What does that mean? Perimeter of a rectangle, \( P = ? \)

5. Picture: Will help you visualize and understand the problem better.

6. Values given and the value to be calculated: \( l, w, P \).
   Formula(e) best representing the above values: \( P = 2l + 2w \)

7. Finding the answer:

\[
P = 2l + 2w
\]
\[
P = 2 \times 24 + 2 \times 18
\]
\[
P = 48 + 36
\]
\[
P = 84 \, ft
\]

8. Checking the answer: Does your answer make sense? Does your solution answer the problem? Length of the brick border around the terrace means the sum of the lengths of each side of the terrace altogether. Yes, the sum of two lengths and two widths gives us 84 ft.