


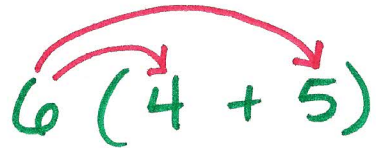
The Distributive Property

Step 1: Identify the number you are distributing


(it's always the # on the outside of the parenthesis)

$$6(4 + 5)$$



Step 2: Distribute that number to each term in the ().

$$6(4 + 5)$$
$$6 \cdot 4 + 6 \cdot 5$$


Step 3: Solve both multiplication problems

$$6(4 + 5)$$
$$6 \cdot 4 + 6 \cdot 5$$
$$24 + 30$$


Step 4: Finish solving the problem (as much as you can)

$$6(4 + 5)$$
$$6 \cdot 4 + 6 \cdot 5$$
$$24 + 30$$


$$\rightarrow \textcircled{54} \text{ final answer}$$

Additional Examples

(with variables)

$$7(3y + 2)$$

$$7 \cdot 3y + 7 \cdot 2$$

$$21y + 14$$

this is your final answer - why?

You cannot solve this problem any further because you do not know the value of the variable

$$(10b - 5)12$$

$$12 \cdot 10b - 12 \cdot 5$$

$$120b - 60$$

* Note: the outside term does not always come at the beginning of the problem - it can also come at the end of the problem but the process does not change!

You can't simplify your answer any further because you do not know the value of the variable!