So we are given an expression:

$$(x + 7) \cdot (3 + x) + (3 + x) \cdot 2 + (x + 7) \cdot (9 + x)$$

Let's simplify it!

Let's reshuffle operands a bit

$$2 \cdot (3 + x) + (3 + x) \cdot (7 + x) + (7 + x) \cdot (9 + x)$$

Sprinkling out-of-brackets magic!

$$(3 + x) \cdot (2 + 7 + x) + (7 + x) \cdot (9 + x)$$

Sprinkling out-of-brackets magic!

$$(9 + x) \cdot (3 + x + 7 + x)$$

Let's reshuffle operands a bit

$$(9 + x) \cdot (10 + x + x)$$

Sprinkling out-of-brackets magic!

$$(9 + x) \cdot (10 + x \cdot 2)$$

Let's reshuffle operands a bit

$$(9 + x) \cdot (10 + 2 \cdot x)$$

And after final prettifing:

$$(9 + x) \cdot (10 + 2 \cdot x)$$