

Name _____

The Expansion Mission

Mission Brief: You're on a quest to **expand and simplify** expressions using the **Distributive Property**. Remember the key rule:

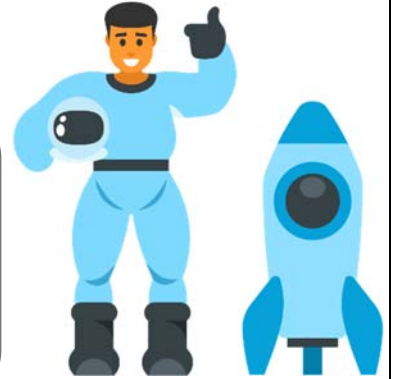
$$a(b + c) = a \times b + a \times c$$

Example Problem: Simplify: $3(x + 4) - 2(x - 5)$

Step 1: $3x + 12 - 2x + 10$

Step 2: Combine like terms $\rightarrow (3x - 2x) + (12 + 10) = x + 22$

Answer: $x + 22$



Directions: Simplify each expression. Combine like terms when possible.

1. $5(x + 7) =$

11. $3(a - 4) + 2(a + 6) =$

2. $2(y + 3 + 5) =$

12. $6(b + 4) - 3(b - 2) =$

3. $-4(m - 2) =$

13. $2[(x + 5) + 3] =$

4. $3(a - b + 2) =$

14. $4(p + 2q - 1) =$

5. $7(x - 3) =$

15. $5(y + 2) - 2(y + 5) =$

6. $\frac{1}{2}(8 + 2x) =$

16. $3(4a - 2b + 1) =$

7. $4[(m + 2) - 3] =$

17. $-6(p + 3 - 2p) =$

8. $9(b + 2b) =$

18. $2(x + y + 4) =$

9. $10(3a - 5b) =$

19. $8(a + 3) - 4(a - 5) =$

10. $6(p + 1) + 2(p - 3) =$

20. $5[(b + 2) + 1] =$