

Operaciones con expresiones algebraicas

1. Completa:

$$a + a + a + a = 4a$$

$$b + b + b = \square$$

$$x + x = \square$$

$$a + a = \square$$

$$b + b + b + b = \square$$

$$x + x + x = \square$$

2. Calcula y completa:

$$2a + 3a = 5a$$

$$3b + 3b = \square$$

$$4x + 5x = \square$$

$$a + 3a = \square$$

$$5b + b = \square$$

$$2x + x = \square$$

$$6a - 2a = \square$$

$$7b - 5b = \square$$

$$5x - 4x = \square$$

$$3a - a = \square$$

$$5b - b = \square$$

$$2x - x = \square$$

3. Calcula y completa:

$$5a^2 + 3a^2 + a = 8a^2 + a$$

$$6x^2 + 2x^2 + 5x - 3x = \square x^2 + \square x$$

$$3a^2 + 5a^2 + 2a = \square a^2 + \square a$$

$$3x^2 + 2x - x^2 - 5x = \square x^2 - \square x$$

4. Coloca los signos que resultan al quitar los paréntesis y completa los resultados:

$$3a^2 - (a^2 + 2a) = 3a^2 - a^2 - 2a = 2a^2 - 2a$$

$$7x^2 - (3x^2 + 2x) = 7x^2 \square 3x^2 \square 2x = \square x^2 - \square x$$

$$2a - (6a - 2a^2) = 2a \square 6a \square 2a^2 = \square a^2 - \square a$$

$$5x - (2x - 3x^2) = 5x \square 2x \square 3x^2 = \square x^2 + \square x$$

5. Completa y simplifica cuando sea posible:

$$3a \cdot 2a = 6a^2$$

$$4b \cdot b = \boxed{} b^2$$

$$5x \cdot 3x = \boxed{} x^2$$

$$\frac{2}{3} a \cdot \frac{1}{4} a = \frac{2}{12} a^2 = \frac{1}{6} a^2$$

$$\frac{2}{3} b \cdot \frac{1}{5} b = \frac{\boxed{}}{\boxed{}} b^2$$

$$\frac{4}{9} x \cdot \frac{3}{2} x = \frac{\boxed{}}{\boxed{}} x^2 = \frac{\boxed{}}{\boxed{}} x^2$$

6. Completa:

$$2a^2 \cdot 3a = 6a^3$$

$$b \cdot b^2 = b^{\boxed{}}$$

$$2x \cdot 4x^2 = \boxed{} x^{\boxed{}}$$

$$5a^2 \cdot \frac{1}{5} a^2 = \frac{\boxed{}}{\boxed{}} a^{\boxed{}} = a^4$$

$$5b \cdot \frac{2}{5} b^2 = \frac{\boxed{}}{\boxed{}} b^{\boxed{}} = \boxed{} b^{\boxed{}}$$

$$\frac{2}{3} x^2 \cdot \frac{3}{2} x^3 = \frac{\boxed{}}{\boxed{}} x^{\boxed{}} = x^{\boxed{}}$$

7. Completa para quitar paréntesis:

$$3 \cdot (1 + a) = 3 + 3a$$

$$2 \cdot (2b + 3) = \boxed{} b + \boxed{}$$

$$5 \cdot (x - 2) = \boxed{} x - \boxed{}$$

$$a \cdot (1 + a) = a + a^2$$

$$2b \cdot (3 - 2b) = \boxed{} b - \boxed{} b^{\boxed{}}$$

$$3x \cdot (x - 1) = \boxed{} x^{\boxed{}} - \boxed{} x$$

8. Calcula:

$$6a^2 : 3a = 2a$$

$$10b^3 : 2b = \boxed{} b^{\boxed{}}$$

$$12x^4 : 3x^2 = \boxed{} x^{\boxed{}}$$

$$3a^3 : 2a = \frac{3}{2} a^2$$

$$2b^5 : 5b^2 = \frac{\boxed{}}{\boxed{}} b^{\boxed{}}$$

$$x^7 : 3x^5 = \frac{\boxed{}}{\boxed{}} x^{\boxed{}}$$