



## Réduire une expression avec parenthèses

**Exercice n°1 :** Réduire les expressions suivantes.

$$3b + (8b - 6) =$$

$$-5z - (-6 + 2z) =$$

$$4y - (-8 - 4y) =$$

$$-9x + (-4x - 1) =$$

$$6z - (6 + 2z) =$$

$$5a - (-7 + 4a) =$$

$$-7c + (-9 + 8c) =$$

$$6b + (5 + 8b) =$$

$$2z - (3 - 8z) =$$

$$3y - (-4 - 2y) =$$

**Exercice n°2 :** Réduire les expressions suivantes.

$$A = -(-2x + 2) + 3x + 9$$

$$B = 9x + (6x + 1) - 10$$

$$C = -3x - (-6x - 9) + 9$$

$$D = 6x - 8 - (-2x - 2)$$

$$E = (x - 8) - 8x - 2$$

$$F = (-6x + 8) - 2x + 4$$

$$G = -(10x - 10) - 5 + 9x$$

$$H = -3x + (-3x + 9) - 3$$

$$I = 4 - (-2x + 6) - 5x$$

$$J = 6 + 9x - (x - 10)$$

**Exercice n°3 :** Réduire les expressions suivantes.

$$(-2x - 8) - (-6x - 2) =$$

$$(-3b + 4) - (-2b + 8) =$$

$$-(9a - 1) + (-6a + 3) =$$

$$-(3z + 2) - (9z + 5) =$$

$$(z - 4) + (8z + 4) =$$

$$(-7y + 4) - (6y + 1) =$$

$$-(2c - 3) + (-8c + 4) =$$

$$(8z - 5) - (-4z + 7) =$$

$$-(-6a + 5) - (6a - 8) =$$

$$(6c - 6) - (8c + 2) =$$

**Exercice n°4 :** Réduire les expressions suivantes.

$$\mathcal{A} = (x + 1) - (x + 4) - (x - 6)$$

$$\mathcal{B} = - (2x^2 - 3x) - (x - 2) - (5 - 4x^2)$$

$$\mathcal{C} = 4x^2 - (6x^2 - 10x^2) + (2x^2 + 7x) - 5$$

$$\mathcal{D} = - 2x + x^2 - (7 + 4x^2) + 3x - (10 - 7x) + 4x^2$$

$$\mathcal{E} = - (4 + 2x - x^2) - (4x - x^2) + (x - x^2)$$

$$\mathcal{F} = 2x^2 + 3 - (6x^2 - x + 3x^3 - 5x) - (- 3x^3 + 9x)$$



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### Correction

**Exercice n°1 :** Réduire les expressions suivantes.

$$3b + (8b - 6) = 3b + 8b - 6 = 11b - 6$$

$$-5z - (-6 + 2z) = -5z + 6 - 2z = -7z + 6$$

$$4y - (-8 - 4y) = 4y + 8 + 4y = 8y + 8$$

$$-9x + (-4x - 1) = -9x - 4x - 1 = -13x - 1$$

$$6z - (6 + 2z) = 6z - 6 - 2z = 4z - 6$$

$$5a - (-7 + 4a) = 5a + 7 - 4a = a + 7$$

$$-7c + (-9 + 8c) = -7c - 9 + 8c = c - 9$$

$$6b + (5 + 8b) = 6b + 5 + 8b = 14b + 5$$

$$2z - (3 - 8z) = 2z - 3 + 8z = 10z - 3$$

$$3y - (-4 - 2y) = 3y + 4 + 2y = 5y + 4$$

**Exercice n°2 :** Réduire les expressions suivantes.

$$A = -(-2x + 2) + 3x + 9$$

$$A = 2x - 2 + 3x + 9$$

$$A = 2x + 3x - 2 + 9$$

$$A = 5x + 7$$

$$B = 9x + (6x + 1) - 10$$

$$B = 9x + 6x + 1 - 10$$

$$B = 15x - 9$$

$$C = -3x - (-6x - 9) + 9$$

$$C = -3x + 6x + 9 + 9$$

$$C = 3x + 18$$

$$D = 6x - 8 - (-2x - 2)$$

$$D = 6x - 8 + 2x + 2$$

$$D = 6x + 2x - 8 + 2$$

$$D = 8x - 6$$

$$E = (x - 8) - 8x - 2$$

$$E = x - 8 - 8x - 2$$

$$E = x - 8x - 8 - 2$$

$$E = -7x - 10$$

$$F = (-6x + 8) - 2x + 4$$

$$F = -6x + 8 - 2x + 4$$

$$F = -6x - 2x + 8 + 4$$

$$F = -8x + 12$$

$$G = -(10x - 10) - 5 + 9x$$

$$G = -10x + 10 - 5 + 9x$$

$$G = -10x + 9x + 10 - 5$$

$$G = -x + 5$$

$$H = -3x + (-3x + 9) - 3$$

$$H = -3x - 3x + 9 - 3$$

$$H = -6x + 6$$

$$I = 4 - (-2x + 6) - 5x$$

$$I = 4 + 2x - 6 - 5x$$

$$I = 2x - 5x + 4 - 6$$

$$I = -3x - 2$$

$$J = 6 + 9x - (x - 10)$$

$$J = 9x + 6 - x + 10$$

$$J = 9x - x + 6 + 10$$

$$J = 8x + 16$$

**Exercice n°3 :** Réduire les expressions suivantes.

$$\begin{aligned} (-2x - 8) - (-6x - 2) &= -2x - 8 + 6x + 2 \\ &= 4x - 6 \end{aligned}$$

$$\begin{aligned} (-3b + 4) - (-2b + 8) &= -3b + 4 + 2b - 8 \\ &= -b - 4 \end{aligned}$$

$$\begin{aligned} -(9a - 1) + (-6a + 3) &= -9a + 1 - 6a + 3 \\ &= -15a + 4 \end{aligned}$$

$$\begin{aligned} -(3z + 2) - (9z + 5) &= -3z - 2 - 9z - 5 \\ &= -12z - 7 \end{aligned}$$

$$\begin{aligned} (-7y + 4) - (6y + 1) &= -7y + 4 - 6y - 1 \\ &= -13y + 3 \end{aligned}$$

$$\begin{aligned} -(2c - 3) + (-8c + 4) &= -2c + 3 - 8c + 4 \\ &= -10c + 7 \end{aligned}$$

$$\begin{aligned} (8z - 5) - (-4z + 7) &= 8z - 5 + 4z - 7 \\ &= 12z - 12 \end{aligned}$$

$$\begin{aligned} -(-6a + 5) - (6a - 8) &= 6a - 5 - 6a + 8 \\ &= 3 \end{aligned}$$

$$(z - 4) + (8z + 4) = z - 4 + 8z + 4$$

$$= 9z$$

$$(6c - 6) - (8c + 2) = 6c - 6 - 8c + 2$$

$$= -2c - 8$$

**Exercice n°4 :** Réduire les expressions suivantes.

$$\mathcal{A} = (x + 1) - (x + 4) - (x - 6)$$

$$\mathcal{A} = x + 1 - x - 4 - x + 6$$

$$\mathcal{A} = -x + 3$$

$$\mathcal{B} = -(2x^2 - 3x) - (x - 2) - (5 - 4x^2)$$

$$\mathcal{B} = -2x^2 + 3x - x + 2 - 5 + 4x^2$$

$$\mathcal{B} = 2x^2 + 2x - 3$$

$$\mathcal{C} = 4x^2 - (6x^2 - 10x^2) + (2x^2 + 7x) - 5$$

$$\mathcal{C} = 4x^2 - 6x^2 + 10x^2 + 2x^2 + 7x - 5$$

$$\mathcal{C} = 10x^2 + 7x - 5$$

$$\mathcal{D} = -2x + x^2 - (7 + 4x^2) + 3x - (10 - 7x) + 4x^2$$

$$\mathcal{D} = -2x + x^2 - 7 - 4x^2 + 3x - 10 + 7x + 4x^2$$

$$\mathcal{D} = x^2 + 8x - 17$$

$$\mathcal{E} = -(4 + 2x - x^2) - (4x - x^2) + (x - x^2)$$

$$\mathcal{E} = -4 - 2x + x^2 - 4x + x^2 + x - x^2$$

$$\mathcal{E} = x^2 - x - 4$$

$$\mathcal{F} = 2x^2 + 3 - (6x^2 - x + 3x^3 - 5x) - (-3x^3 + 9x)$$

$$\mathcal{F} = 2x^2 + 3 - 6x^2 + x - 3x^3 + 5x + 3x^3 - 9x$$

$$\mathcal{F} = -4x^2 - 3x + 3$$