

Résoudre dans  $\mathbb{R}$  les équations suivantes :

1)  $3(x + 1) = 1 - 2x$

$$3x + 3 = 1 - 2x$$

$$3x + 2x = 1 - 3$$

$$5x = -2$$

$$x = -\frac{2}{5}$$

$$\mathcal{J} = \left\{ -\frac{2}{5} \right\}$$

2)  $2(3x - 1) = 3x + 7$

$$2(3x - 1) = 3x + 7$$

$$6x - 2 = 3x + 7$$

$$5x - 3x = 7 + 2$$

$$2x = 9$$

$$x = \frac{9}{2}$$

$$\mathcal{J} = \left\{ \frac{9}{2} \right\}$$

3)  $3x - 4(x - 1) = 2(5 - 2x)$

$$3x - 4x + 4 = 10 - 4x$$

$$-x + 4 = 10 - 4x$$

$$-x + 4x = 10 - 4$$

$$3x = 6$$

$$x = \frac{6}{3}$$

$$x = 2$$

$$\mathcal{J} = \{2\}$$

4)  $3(2y - 1) + y - 2 = 5(1 + y)$

$$6y - 3 + y - 2 = 5 + 5y$$

$$7y - 5 = 5 + 5y$$

$$7y - 5y = 5 + 5$$

$$2y = 10$$

$$y = \frac{10}{2}$$

$$y = 5$$

$$\mathcal{J} = \{5\}$$

5)  $2(3x - 1) - 4(1 + x) = 8 - 2(1 + 2x)$

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

$$2x - 6 = 6 - 4x$$

$$2x + 4x = 6 + 6$$

$$6x = 6$$

$$x = \frac{6}{6}$$

$$x = 1$$

$$\mathcal{J} = \{1\}$$

6)  $4(x - 3) - 2x + 7 - 4(8x + 1) = 0$

$$4x - 12 - 2x + 7 - 32x - 4 = 0$$

$$-30x - 9 = 0$$

$$-30x = 9$$

$$x = \frac{9}{-30}$$

$$x = -\frac{3}{10}$$

$$\mathcal{J} = \left\{ -\frac{3}{10} \right\}$$