

Résoudre dans \mathbb{R} :

$$1) \frac{2x+7}{4} + \frac{3x-1}{2} = -3$$

$$\frac{3(2x+7)}{12} + \frac{6(3x-1)}{12} = -\frac{36}{12} \Leftrightarrow 3(2x+7) + 6(3x-1) = -36$$

$$6x + 21 + 18x - 6 = -36 \Leftrightarrow 6x + 18x = -36 - 21 + 6 \Leftrightarrow 24x = -51 \Leftrightarrow x = -\frac{51}{24} = -\frac{17}{8}.$$

$$2) \frac{3(x+4)}{5} - \frac{x+3}{2} = \frac{2x-1}{10}$$

$$\frac{6(x+4)}{10} - \frac{5(x+3)}{10} = \frac{2x-1}{10} \Leftrightarrow 6(x+4) - 5(x+3) = 2x-1$$

$$6x + 24 - 5x - 15 = 2x - 1 \Leftrightarrow 6x - 5x - 2x = -1 - 24 + 15 \Leftrightarrow -x = -10 \Leftrightarrow x = +10.$$