

2:11

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

$$\frac{3}{3} - \frac{x+1}{3} = \frac{6x}{3} - \frac{1}{3}$$

$$3 - (x+1) = 6x - 1$$

$$3 - x - 1 = 6x - 1$$

$$3 = 6x + x$$

$$3 = 7x \rightarrow \boxed{x = \frac{3}{7}}$$

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

$$\frac{6}{6} - \frac{2(1-x)}{6} = \frac{6x}{6} + \frac{3}{6}$$

$$6 - 2(1-x) = 6x + 3$$

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

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

$$-4x = -1$$

$$x = \frac{-1}{-4} \rightarrow \boxed{x = \frac{1}{4}}$$

$$f) \frac{3x}{5} - 1 = x - \frac{x+1}{2}$$

$$\frac{6x}{10} - \frac{10}{10} = \frac{10x}{10} - \frac{5(x+1)}{10}$$

$$6x - 10 = 10x - 5(x+1)$$

$$6x - 10 = 10x - 5x - 5$$

$$6x - 10x + 5x = -5 + 10$$

$$\boxed{x = 5}$$

$$c) \frac{3x-1}{2} - 1 = 2x - 2$$

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

$$3x - 1 - 2 = 4x - 4$$

$$3x - 4x = -4 + 1 + 2$$

$$-x = -1$$

$$\boxed{x = 1}$$

$$d) x + \frac{2-3x}{5} = \frac{x}{2} + 1$$

$$\frac{10x}{10} + \frac{4-6x}{10} = \frac{5x}{10} + \frac{10}{10}$$

$$10x + 4 - 6x = 5x + 10$$

$$10x - 6x - 5x = 10 - 4$$

$$-x = 6$$

$$\boxed{x = -6}$$

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

$$\frac{8x}{4} + \frac{2x-6}{4} = \frac{x-3}{4}$$

$$8x + 2x - 6 = x - 3$$

$$8x + 2x - x = -3 + 6$$

$$9x = 3$$

$$x = \frac{3}{9}$$

$$x = \frac{1}{3}$$

$$\boxed{x = \frac{1}{3}}$$

$$g) \frac{x+3}{5} - \frac{x-6}{7} = 1$$

$$\frac{7(x+3)}{35} - \frac{5(x-6)}{35} = \frac{35}{35}$$

$$7(x+3) - 5(x-6) = 35$$

$$7x + 21 - 5x + 30 = 35$$

$$7x - 5x = 35 - 21 - 30$$

$$2x = -16$$

$$x = \frac{-16}{2}$$

$$\boxed{x = -8}$$

$$h) \frac{1-x}{3} - \frac{x-1}{12} = \frac{3x-1}{4}$$

$$\frac{4(1-x)}{12} - \frac{x-1}{12} = \frac{3(3x-1)}{12}$$

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

$$4 - 4x - x + 1 = 9x - 3$$

$$-4x - x - 9x = -3 - 4 - 1$$

$$-14x = -8$$

$$\boxed{x = \frac{-8}{-14} = \frac{4}{7}}$$