

S.94

(501)

a) $3(x + 2) = 15$

$$3x + \cancel{6}^0 = \cancel{15}^9 \quad // -6$$

$$\frac{3x}{3} = \frac{9}{3} \quad // :3$$

$$x = 3$$

b) $2(x + 4) = 14$

$$2x + \cancel{8}^0 = \cancel{14}^6 \quad // -8$$

$$\frac{2x}{2} = \frac{6}{2} \quad // :2$$

$$x = 3$$

c) $2(3x + 4) = 26$

$$6x + \cancel{8} = \cancel{26} \quad // -8$$

$$\frac{6x}{6} = \frac{18}{6} \quad // :6$$

$$x = 3$$

d)

$$3(5x - 2) = -21$$

$$15x - \cancel{6}^0 = \cancel{-21}^{-15} \quad // +6$$

$$\frac{15x}{15} = \frac{-15}{15} \quad // :15$$

$$x = -1$$

(503)

$$\begin{aligned} \text{a)} \quad 3(3x + 1) &= 2(4x + 6) \\ \cancel{9x} + 3 &= \cancel{8x} + 12 \quad \parallel -8 \\ x + 3 &= 12 \quad \parallel -3 \\ x &= 9 \end{aligned}$$

$$\begin{aligned} \text{b)} \quad 2(5x + 2) &= 4(2x + 3) \\ \cancel{10x} + 4 &= \cancel{8x} + 12 \quad \parallel -8 \\ 2x + 4 &= 12 \quad \parallel -4 \\ \frac{2x}{2} &= \frac{8}{2} \quad \parallel :2 \\ x &= 4 \end{aligned}$$

$$\begin{aligned} \text{c)} \quad 7(x + 1) &= 4(x + 4) \\ \cancel{7x} + 7 &= \cancel{4x} + 16 \quad \parallel -4x \\ 3x + 7 &= 16 \quad \parallel -7 \\ \frac{3x}{3} &= \frac{9}{3} \quad \parallel :3 \\ x &= 3 \end{aligned}$$

$$\begin{aligned} \text{d)} \quad 2(x + 1) &= 2x - 5 \\ \cancel{2x} + 2 &= \cancel{2x} - 5 \quad \parallel -2x \\ 2 &= -5 \\ &\text{ei ratkaisua} \end{aligned}$$

S. 96

(5/6)

$$\frac{3(X-8)}{3} = 2 \cdot 3 \quad || \cdot 3$$

$$a) \quad X - \cancel{8}^{+8} = \cancel{6}^{+8} \quad || + 8$$

$$X = 14$$

$$b) \quad 5 \cdot 3a = \frac{5(a+14)}{5} \quad || \cdot 5$$

$$\cancel{15}a = \cancel{a} + 14 \quad || - a$$

$$\frac{14a}{14} = \frac{14}{14} \quad || : 14$$

$$a = 1$$

$$c) \quad \frac{\cancel{6}(2y+3)}{\cancel{6}} = 3 \cdot 6 \quad || \cdot 6$$

$$2y + \cancel{3} = 18 \quad || - 3$$

$$2y = 15 \quad || : 2$$

$$y = \frac{15}{2} = 7\frac{1}{2} (= 7,5)$$

$$d) \quad \frac{\cancel{4}y+3}{\cancel{4}} = 2 \cdot 4 \quad || \cdot 4$$

$$y+3 = 8 \quad || - 3$$

$$y = 5$$