

S. 94

(501)

$$\begin{aligned} \text{a) } 3(x+2) &= 15 \\ 3x + \cancel{6}^0 &= \cancel{15}^9 \quad \parallel -6 \\ 3x &= 9 \quad \parallel :3 \\ \frac{3x}{3} &= \frac{9}{3} \\ x &= 3 \end{aligned}$$

$$\begin{aligned} \text{b) } 2(x+4) &= 14 \\ 2x + \cancel{8}^0 &= \cancel{14}^6 \quad \parallel -8 \\ 2x &= 6 \quad \parallel :2 \\ \frac{2x}{2} &= \frac{6}{2} \\ x &= 3 \end{aligned}$$

$$\begin{aligned} \text{c) } 2(3x+4) &= 26 \\ 6x + \cancel{8}^0 &= \cancel{26}^{18} \quad \parallel -8 \\ 6x &= 18 \quad \parallel :6 \\ \frac{6x}{6} &= \frac{18}{6} \\ x &= 3 \end{aligned}$$

$$\begin{aligned} \text{d) } 3(5x-2) &= -21 \\ 15x - \cancel{6}^0 &= \cancel{-21}^{-15} \quad \parallel +6 \\ 15x &= -15 \quad \parallel :15 \\ \frac{15x}{15} &= \frac{-15}{15} \\ x &= -1 \end{aligned}$$

(502) a) $2(1 + 4x) = 10x - 5$
 $\begin{array}{rcl} 2 + 8x & -2x & = 10x - 5 \quad \parallel -10x \\ -2^0 - 2x & & = -5^{-7} \quad \parallel -2 \\ -2x & = & -7 \quad \parallel :(-2) \\ \hline -2 & & -2 \end{array}$
 $x = \frac{7}{2} = 3\frac{1}{2} (=3,5)$

b) $9x - 1 = 2(1 + 4x)$
 $\begin{array}{rcl} 9x - 1 & = & 2 + 8x^0 \quad \parallel -8x \\ x - 1^0 & = & 2^3 \quad \parallel +1 \\ x & = & 3 \end{array}$

c) ~~$7(x+1) = 4(x+1)$~~
 $9y - 2 = 2(3y + 5)$
 $\begin{array}{rcl} 9y - 2 & = & 6y^0 + 10 \quad \parallel -6y \\ 3y - 2^0 & = & 10^{12} \quad \parallel +2 \\ 3y & = & 12 \quad \parallel :3 \\ \frac{3y}{3} & = & \frac{12}{3} \\ y & = & 4 \end{array}$

d) $2(5 - y) = 22 - 5y$
 $\begin{array}{rcl} 10 - 2y^{3y} & = & 22 - 5y^0 \quad \parallel +5y \\ 10^0 + 3y & = & 22^{12} \quad \parallel -10 \\ 3y & = & 12 \quad \parallel :3 \\ \frac{3y}{3} & = & \frac{12}{3} \\ y & = & 4 \end{array}$

$-2 + 5 = 3$

(503)

$$\begin{aligned} \text{a) } 3(3x + 1) &= 2(4x + 6) \\ \cancel{9x^x} + 3 &= \cancel{8x^0} + 12 \quad \parallel -8x \\ x + 3^0 &= 12^9 \quad \parallel -3 \\ x &= 9 \end{aligned}$$

$$\begin{aligned} \text{b) } 2(5x + 2) &= 4(2x + 3) \\ \cancel{10x^{2x}} + 4 &= \cancel{8x^0} + 12 \quad \parallel -8x \\ 2x + 4^0 &= 12^8 \quad \parallel -4 \\ 2x &= 8 \quad \parallel :2 \\ \frac{2x}{2} &= \frac{8}{2} \\ x &= 4 \end{aligned}$$

$$\begin{aligned} \text{c) } 7(x + 1) &= 4(x + 4) \\ \cancel{7x^{3x}} + 7 &= \cancel{4x^0} + 16 \quad \parallel -4 \\ 3x + 7^0 &= 16^9 \quad \parallel -7 \\ 3x &= 9 \quad \parallel :3 \\ \frac{3x}{3} &= \frac{9}{3} \\ x &= 3 \end{aligned}$$

$$\begin{aligned} \text{d) } 2(x + 1) &= 2x - 5 \\ \cancel{2x^0} + 2 &= \cancel{2x^0} - 5 \quad \parallel -2x \\ 2 &= -5 \end{aligned}$$

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