

Q1.

$$(i) \quad 10 + \boxed{\frac{7}{}} = 17$$

$$(ii) \quad 25 - \boxed{\frac{2}{}} = 23$$

Q2.

$$y = 20 - 6$$

$$y = 14$$

Q3.

$$t = 20 \times 3$$

$$t = 60$$

Q4.

$$x = \frac{12}{2}$$

$$x = 6$$

Q5.

$$y = 12 + 5$$

$$y = 17$$

Q6.

$$z = \frac{30}{3}$$

$$z = 10$$

Q7.

$$6(x - 3) = 12$$

$$x - 3 = 12 \div 6$$

$$x - 3 = 2$$

$$x = 2 + 3$$

$$x = 5$$

Q8.

$$2(x - 3) = 120$$

$$x - 3 = 120 \div 2$$

$$x - 3 = 60$$

$$x = 60 + 3$$

$$x = 63$$

Q9.

$$10(n - 2) = 60$$

$$n - 2 = 6$$

$$n = 8$$

Q10.

(a)

$$x + 7 = 21$$

$$x = 21 - 7$$

$$x = 14$$

(b)

$$3t - 10 = 26$$

$$3t = 26 + 10$$

$$3t = 36$$

$$t = 36 \div 3$$

$$t = 12$$

Q11.

(a)

$$x + x + x = 30$$

$$3x = 30$$

$$x = 30 \div 3$$

$$x = 10$$

(b)

$$y / 4 = 4$$

$$y = 4 \times 4$$

$$y = 16$$

(c)

$$2a - 5 = 51$$

$$2a = 56$$

$$a = 28$$

Q12.

$$9(m - 5) = 45$$

$$m - 5 = 45 \div 9$$

$$m - 5 = 5$$

$$m = 5 + 5$$

$$m = 10$$

Q13.

(a)

$$2x = 6 \times 3$$

$$2x = 18$$

$$x = 18 \div 2$$

$$x = 9$$

(b)

$$2(n + 5) = 16$$

$$n + 5 = 8$$

$$n = 8 - 5$$

$$n = 3$$

Q14.

(a)

$$s + s + s + s = 36$$

$$4s = 36$$

$$s = 36 \div 4$$

$$s = 9$$

(b)

$$u - 3 = 4$$

$$u = 4 + 3$$

$$u = 7$$

(c)

$$4d + 6 = 34$$

$$4d = 28$$

$$d = 28 \div 4$$

$$d = 7$$

Q15.

(a)

$$4t = 16$$

$$t = 16 \div 4$$

$$t = 4$$

(b)

$$3y + 9 = 21$$

$$3y = 12$$

$$y = 12 \div 3$$

$$y = 4$$

Q16.

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

$$x = 6 + 6$$

$$x = 12$$

Q17.

(a)

$$\begin{aligned}4 &= 12 - 4k \\ -4k &= 4 - 12 \\ -4k &= -8 \\ k &= (-8) \div (-4) \\ k &= 2\end{aligned}$$

(b)

$$\begin{aligned}\frac{k+4}{4} &= 5 \\ k + 4 &= 5 \times 4 \\ k + 4 &= 20 \\ k &= 20 - 4 \\ k &= 16\end{aligned}$$

Q18.

(a)

$$\begin{aligned}4w &= 3w + 9 \\ 4w - 3w &= 9 \\ w &= 9\end{aligned}$$

(b)

$$\begin{aligned}4x + 8 &= 0 \\ 4x &= -8 \\ x &= -8 \div 4 \\ x &= -2\end{aligned}$$

Q19.

(a)

$$2p + 36 = 8p$$

$$36 = 6p$$

$$p = 36 \div 6$$

$$p = 6$$

(b)

$$36 = 4(2x - 5)$$

$$36 = 8x - 20$$

$$8x = 56$$

$$x = 56 \div 8$$

$$x = 7$$

Q20.

$$4x + 10 = 6x + 8$$

$$10 - 8 = 6x - 4x$$

$$2 = 2x$$

$$x = 2 \div 2$$

$$x = 1$$

Q21.

$$3m - 10 = 20 + m$$

$$3m - m = 20 + 10$$

$$2m = 30$$

$$m = 30 \div 2$$

$$m = 15$$

Q22.

$$10 + 5 = 5k$$

$$15 = 5k$$

$$k = 3$$

Q23.

$$6y + 11 = 3y + 5$$

$$6y - 3y = 5 - 11$$

$$3y = -6$$

$$y = -6 \div 3$$

$$y = -2$$

Q24.

$$8x - 2x = 28 - 10$$

$$6x = 18$$

$$x = 3$$

Q25.

$$15 + 12 = 6x - 3x$$

$$27 = 3x$$

$$x = \frac{27}{3}$$

$$x = 9$$

Q26.

$$3x - 4x = 7 + 9$$

$$-x = 16$$

$$x = -16$$

Q27.

$$20t - 7t = -7 + 20$$

$$13t = 13$$

$$t = \frac{13}{13}$$

$$t = 1$$
