Lesson 13

13.1 Revision

Marks Available : 100

Question 1

Simplify;

(i) (8) + (5) + (4) + (7)

[**2 marks**]

(ii) (26) + (− 9) + (− 4) + (− 3)

[**2 marks**]

(iii) (7) − (12) + (2) − (5)

[**2 marks**]

(iv) (4) + (− 7) + (8) + (− 1)

[**2 marks**]

(v) (− 3) + (13) − (− 8)

[**2 marks**]

(vi) (8) − (− 5) − (2)

[**2 marks**]

(vii) $(6x) + (4y) + (8x) + (5y)$

[**2 marks**]

(viii) $(25x) − (8x) − (4x)$

[**2 marks**]

(ix) $(12y) − (− 7y) + (5y)$

[**2 marks**]

(x) $(− 14m) + (− 3m) − (− 5m)$

[**2 marks**]

Question 2

I'm not going to not do nothing !
What does this sentence simplify to ?

[**2 marks**]

Question 3
Solve these equations;

(i) $8x + 17 = 57$

(ii) $5y - 13 = 17$

[2, 2 marks]

(iii) $6k + 34 = 10$

(iv) $3m + 8 = -13$

[2, 2 marks]

(v) $-8g + 11 = -37$

(vi) $14 + 4z = 16$

[2, 2 marks]

(vii) $22 - 12x = 13$

(viii) $17 - 7h = 22$

[2, 2 marks]

(ix) $27 + 24v = 36$

(x) $-9p - 8 = -62$

[2, 2 marks]

Question 4

Solve these pairs of simultaneous equations by ADDITION;

(i) $\begin{aligned} x + y &= 11 \\ x - y &= 5 \end{aligned}$

[2 marks]

(ii) $\begin{aligned} 5y + 4x &= 70 \\ 3y - 4x &= 10 \end{aligned}$

[2 marks]

(iii) $\begin{aligned} 7y + 2x &= 29 \\ 11y - 2x &= 43 \end{aligned}$

[2 marks]

(iv) $\begin{aligned} 3y + 6x &= 20 \\ -3y + 2x &= 4 \end{aligned}$

[2 marks]

Question 5
Solve these pairs of simultaneous equations by SUBTRACTION;

(i)
$$5y + 7x = 19$$
$$2y + 7x = 16$$

[3 marks]

(ii)
$$4x + 5y = 7$$
$$2x + 5y = 1$$

[3 marks]

(iii)
$$6y + 10x = 8$$
$$y + 10x = 18$$

[3 marks]

(iv)
$$6y + 5x = -11$$
$$2y + 5x = -7$$

[3 marks]

Question 6
Solve these pairs of simultaneous equations;

(i)
$$12x + y = 64$$
$$5x - 2y = 17$$

[3 marks]

(ii)
$$10y - 5x = 35$$
$$11y + 10x = -8$$

[3 marks]

(iii)
$$7x + 9y = 139$$
$$2x + 3y = 44$$

[3 marks]

(iv)
$$6y + 11x = 41$$
$$3y + 2x = -4$$

[3 marks]

Question 7

Solve these pairs of simultaneous equations;

(**i**)
$$3x + 2y = 30$$
$$4x - 3y = 23$$

[**4 marks**]

(**ii**)
$$3y + 2x = -16$$
$$4y + 5x = -5$$

[**4 marks**]

(**iii**)
$$5x - 3y = 31$$
$$2x + 4y = 2$$

[**4 marks**]

(**iv**)
$$2y + 5x = 10$$
$$3y - 2x = -230$$

[**4 marks**]

Question 8

Use simultaneous equations to find the value of each symbol in the puzzle;

$$\blacklozenge + \clubsuit + \blacklozenge + \clubsuit = 92$$

$$\clubsuit + \blacklozenge + \clubsuit + \clubsuit = 104$$

[5 marks]

Question 9

At a dog show, there were dogs and people.
At the show there were 400 heads and 1042 legs.
How many dogs were at the show ?

[5 marks]