



## Exercise 8A

Q1

**Answer :**

(i)  $x$  increased by 12 is  $(x+12)$ .

(ii)  $y$  decreased by 7 is  $(y-7)$ .

(iii) The difference of  $a$  and  $b$ , when  $a > b$  is  $(a-b)$ .

(iv) The product of  $x$  and  $y$  is  $xy$ .

The sum of  $x$  and  $y$  is  $(x+y)$ .

So, product of  $x$  and  $y$  added to their sum is  $xy + (x+y)$ .

(v) One third of  $x$  is  $\frac{x}{3}$ .

The sum of  $a$  and  $b$  is  $(a+b)$ .

$\therefore$  One-third of  $x$  multiplied by the sum of  $a$  and  $b = \frac{x}{3} \times (a+b) = \frac{x(a+b)}{3}$

(vi) 5 times  $x$  added to 7 times  $y = (5 \times x) + (7 \times y)$ , which is equal to  $5x + 7y$ .

(vii) Sum of  $x$  and the quotient of  $y$  by 5 is  $x + \frac{y}{5}$ .

(viii)  $x$  taken away from 4 is  $(4-x)$ .

(ix) 2 less than the quotient of  $x$  by  $y$  is  $\frac{x}{y} - 2$ .

(x)  $x$  multiplied by itself is  $x \times x = x^2$ .

(xi) Twice  $x$  increased by  $y$  is  $(2 \times x) + y = 2x + y$ .

(xii) Thrice  $x$  added to  $y$  squared is  $(3 \times x) + (y \times y) = 3x + y^2$ .

(xiii)  $x$  minus twice  $y$  is  $x - (2 \times y) = x - 2y$ .

(xiv)  $x$  cubed less than  $y$  cubed is  $(y \times y \times y) - (x \times x \times x) = y^3 - x^3$ .

(xv) The quotient of  $x$  by 8 is multiplied by  $y$  is  $\frac{x}{8} \times y = \frac{xy}{8}$ .

Q2

**Answer :**

Ranjit's score in English = 80 marks

Ranjit's score in Hindi =  $x$  marks

Total score in the two subjects = (Ranjit's score in English + Ranjit's score in Hindi)

$\therefore$  Total score in the two subjects =  $(80 + x)$  marks

Q3

**Answer :**

(i)  $b \times b \times b \times \dots$  15 times =  $b^{15}$

(ii)  $y \times y \times y \times \dots$  20 times =  $y^{20}$

(iii)  $14 \times a \times a \times a \times a \times a \times b \times b \times b = 14 \times (a \times a \times a \times a \times a) \times (b \times b \times b) = 14a^5b^3$

(iv)  $6 \times x \times x \times x \times y \times y = 6 \times (x \times x \times x) \times (y \times y) = 6x^3y^2$

(v)  $3 \times z \times z \times z \times y \times y \times x = 3 \times (z \times z \times z) \times (y \times y) \times x = 3z^3y^2x$

Q4

**Answer :**

(i)  $x^2y^4 = (x \times x) \times (y \times y \times y \times y) = x \times x \times y \times y \times y \times y$

(ii)  $6y^5 = 6 \times (y \times y \times y \times y \times y) = 6 \times y \times y \times y \times y \times y$

(iii)  $9xy^2z = 9 \times x \times (y \times y) \times z = 9 \times x \times y \times y \times z$

(iv)  $10a^3b^3c^3 = 10 \times (a \times a \times a) \times (b \times b \times b) \times (c \times c \times c) = 10 \times a \times a \times a \times b \times b \times b \times c \times c \times c$

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