CHAPTER-21

FRAMING ALGEBRAIC EXPRESSIONS

STUDY NOTE

To express a given statement in terms of some variables in the form of an algebra expression is called framing of an algebraic expression.

For example 1. Area of a rectangle = its length x its breadth = lxb

2. Speed of a car that travels distance d in time t = d/t

3. Total surface area of the cuboid

= 2 x (length x breadth + breadth x height + height x length)

= 2 x (lx b + bx h + hx l)

FRAMING A FORMULA

To express a given statement in the form of an algebraic equation is called framing of formula. A formula is a statement expressed in symbols (letters) showing the relationship of related quantities.

Statement	Corresponding formula
The sum of two numbers x and y is 75.	x + y = 75
The velocity (V ms) of a car which travels d metres in t seconds.	v = d/ t
The balance B in my bank account, if I started with A	B = A - W

and withdrew W.

An article is bought for x and is sold for y. **p = y- x**

If x is greater than y, profit P is :

EVALUATION OF ALGEBRAIC EXPRESSIONS

Evaluation is the process used to find out the value of the given algebraic expression for the given value (values) of variable (variables) used in it.

Example :

Evaluate : (i) 4m - 9 for m = - 3.

(ii) 5p + 24 for p = -3.

Solution: (i) 4m-9 for m=-3

= 4 × (-3) – 9 = -12-9 = -21

(ii) 4x + 21 for x = 4

= 4 x 4 + 21 =37

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