Algebra

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ch-18 Fundamental concepts

Ex 18(A)

1) Express each of the following statements is algebraic form:

i) The sum of 8 and x is equal to y. $x+8=y$

ii) x decreased by 5 is equal to y. $x-5=y$

iii) The sum of 2 and x is greater than y. $x+2>y$

iv) The sum of x and y is less than 24. $x+y<24$

v) 15 multiplied by m gives 3n. $m\times 15=3n$

vi) Product of 8 and y is equal to 3x. $y\times 8=3x$

vii) 30 divided by b is equal to p. $b\div 30=p$

viii) z decreased by 3x is equal to y. $z-3x=y$

ix) 12 times of x is equal to 5z. $x\times 12=5z$

x) 12 times of x is greater than 5z. $x\times 12>5z$

xi) 12 times of x is less than 5z. $x\times 12<5z$

xii) 3z subtracted from 45 is equal to y. $3z-45=y$

x(iii) 8x divided by y is equal to 2z. $\frac{8x}{y} = 2z$

x(iv) 7y subtracted from 45 is equal to y.

$7y - 45 = y$

x(v) 7y decreased by 5x gives 8z. $7y - 5x = 8z$

2) For each of the following algebraic expressions, write a suitable statement in words.

i) $3x + 8 = 15$ - 8 added to 3x is equal to 15.

ii) $7 - y > x$ - y subtracted by 7 is greater than x

iii) $2y - x < 12$ - x subtracted by 2y is less than 12

iv) $5 \div z = 5$ - z divided by 5 is equal to 5

v) $a + 2b > 18$ - a added to 2b is greater than 18

vi) $2x - 3y = 16$ - 2x subtracted by 3y is equal to 16

vii) $3a - 4b > 14$ - 3a subtracted by 4b is greater than 14

viii) $b + 7a < 21$ - b added to 7a is less than 21

ix) $(16 + 2a) - x > 25$ - 2a added to 16 and the subtracted by x is greater than 25

x) $(3x + 12) - y < 3a$ — 3x added to 12 and then subtracted by y is less than 3a