## Exercise 18 (A)

1. Express each of the following statements in algebraic form:

(i) The sum of 8 and x is equal to y.
(ii) x decreased by 5 is equal to y.
(iii) The sum of 2 and x is greater than y.
(iv) The sum of x and y is less than 24.
(v) 15 multiplied by m gives 3n.
(vi) Product of 8 and y is equal to 3x.
(vii) 30 divideded by b is equal to p
(viii) z decreased by 3x is equal to y.
(ix) 12 times of x is equal to 5z.
(x) 12 times of x is greater than 5z.
(xi) 12 times of x is less than 5z.
(xii) 3z subtracted from 45 ~~is~~ gives equal to y.
(xiii) 8x divided by y is equal to 2z
(xiv) 7y subtracted from 5x gives 8z.
(xv) 7y decreased by 5x given 8z.

Solution:

i- The sum of 8 and x is equal to y in algebraic form is written as.
$x + 8 = y$

ii- x decreased 5 is equal to y in algebraic form is written as.
$x - 5 = y$

iii- The sum of 2 and x is greater than y in algebraic form is written as.
$2 + x > y$

iv- The sum of x and y is less than 24 in algebraic form is written as,
$x+y<24$

v- 15 multiplied by m gives 3n in algebraic form is written as,
$15 \times m = 3n$

vi- Product of 8 and y is equal to 3x in algebraic form is written as,
$8 \times Y = 3x$

vii- 30 divided byb is equal to p in algebraic form is written as,
$30 \div b = P$

viii- 2 decreased by 3x is equal to y in algebraic form is written as,
$2-3x = Y$

ix- 12 times of x is greater than 5z in algebraic form is written as,
$12^{x} x = 5z$

x- 12 times of x is greater than 5z in algebraic form is written as
$12^{x} x > 5z$

xi- 12 times of x is less than 5z in algebraic form is written as,
$12^{x} x < 5z$

xii- 3z subtracted from 45 is equal to Y algebra
form is written as,
$45 - 3z = Y$

xiii- 8x divided by y is equal to y in algebraic
form is written as,
$8x \div Y = 2z$

xiv- 7y subtracted from 5x gives 8z in algebraic
Form is written as,
$5x - 7y = 8z$

xv- 7y decreased by 5x gives 8z in algebraic
form is written as,

2. For each of the following algebraic expressions, write a suitable statemen in word:

(i) $3x + 8 = 15$
(ii) $7 - y \geq x$
(iii) $2y - x < 12$
(iv) $5 \div z = 5$
(v) $a + 2b > 18$
(vi) $2x - 3y = 16$
(vii) $3a - 4b > 14$
(viii) $b + 7a < 21$
(ix) $(16 + 2a) - x > 25$
(x) $(3x + 12) - y < 3a$

Solution:

i- The algebraic expression $3x + 8 = 15$ in words is expressed as,
3x plus 8 is equal to 15.

ii- The algebraic expressions $7-y \geq x$ in words is expressed as,
7 decreased by y is greater than x

iii- The algebraic expressions $2y-x < 12$ in words is expressed as,
2y by decreased x is less than 12

iv- The algebraic expressions $5 \div 2 = 5$ in words is expressed as,
as a ~~increased~~ 5 divided by 2 is equal to 5.

v- The algebraic expressions $a+2b > 18$ in words is expressed as, a increased by 2b is greater that 18

vi- The algebraic expressions $2x-3y = 16$ in words, is written as, 2x decreased by 3y is equal to 16.

vii- The algebraic expressions $3a-4b \geq 14$ in words is written as, 3a decreased by 4b is greater than 14.

viii- The algebraic expressions $b+7a < 21$ in words is written as, b increased by 7a is less than 21.

ix- The algebraic expressions $(16+2a)-x > 25$ in words is written as, The sum of 16 and 2a decreased by x is greater than 25.

x- The algebraic expression $(3x-12)-Y<3$ a in words is written as, The sum of 3x and 12 decreased by y is less than 3a.