Assignments for Algebraic Exercise 3

Question 1

Carry out the multiplication of the expressions in each of the following pairs.

(a) 4x, 2x+ 2y+z

(b) pq, p − q+1

(c) a - b, 7a²b²

(d) pq + qr + rp+ 1, 0

e) a^{10} x $(2a^{32})$ x $(9a^{26})$

f) $(2xy/3) \times (-9x^2y^2/10)$

g) $(-10pq^3/3) \times (p^3q/5 + 1)$

h) (a) x (a^2) x (a^3) x (a^8) x (a^{16})

i) (2p + 1),(4p − 3)

j) (x − 2), (3x − 8)

k) (12.5p − 0.5m), (1.5l + 0.5m)

l) (a + 3b) , (a + 5+1)

m) (x+ y + z)(x + y − z)

Question 2

The Length and Breadth of a rectangle is 2p and 2(p+q). The area of the rectangle is

a) 4p+4pq

b) 16pq

c) $4p^2$ +4pq

d) None of these

Question 3

(a) Simplify 3 (4x – 5) + 9x and find its values for (i) x = 1 (ii) x =0

(b) Simplify $a (a^2 + a + 1) + 5$ and find its value for (i) $a = 1$, (ii) $a = 1/2$ (iii) $a = – 1/2$.

Question 4

(a) Add: $p (p – q), q (q – r) , r (r – p), 2pq+2pr+2qr$

(b) Add: $2x (z – x – y)$ and $2y (z – y – x)$

(c) Subtract: $3l (l – 4 m + 5 n)$ from $4l (10 n – 3 m + 2 l)$

(d) Subtract: $3a (a + b + c) – 2 b (a – b + c)$ from $4c (– a + b + c)$

e) Product of (x + 7y) and (7x – y)

f) Product of $(a^2 - b) (a^2 + b^2)$

g) Product $(x^2 - y^2) (2x + 3y)$