Introduction to Formal Algebra

1 The expression $6x + 5y + 12z + 2$ has 4 terms

a) List the terms

b) What is the constant term

c) What is the coefficient of x

d) Which letter has a coefficient of 12

2 For each of the following expressions state the number of terms

a) $12a + 15$

b) $31 - 21a + 15b$

c) $15a + 4b - \frac{4}{3}ab + 3c$

3 For each of the following expressions state the coefficient of a

a) $3a + 5$

b) $21 - 6b + 5a$

c) $a + 3$

4 Write an expression for each of the following without using the x or ÷ symbols

a) 3 more than a

b) the sum of b and 7

c) y subtracted from 4

d) n divided by 5

5 Write an expression for each of the following without using the x or ÷ symbols

a) 3 is added to a, then the result is doubled

b) n is tripled and 3 is added

c) b is halved and then 2 is subtracted

d) the product of a and b is subtracted from 8

Answers

Question 1

a) 6x, 57, 12z, 2

b) 2

c) 6

d) Z

Question 2

a) 2

b) 3

c) 4

Question 3

a) 3

b) 5

c) 1

Question 4

a) $a + 3$

b) $b + 7$

c) $4 - y$

d) $\frac{n}{5}$

Question 5

a) $2(a + 3)$

b) $3n + 3$

c) $\frac{b}{2} - 2$

d) $8 - ab$