A025 Expanding and factorising 1

Q1.

(a) Simplify $8e + 2f - 11e + 3f$

....

(2)

(b) Expand $2y(3y - 7)$

....

(2)

(Total for question = 4 marks)

Q2.

Expand and simplify
(i) $5(2x + 1) - 3(3x - 1)$

....

(ii) $(y + 5)(y - 7)$

....

(Total for question = 4 marks)

Q3.

(a) Simplify $2e^2f \times 5e^3f$

....
(2)

(b) Factorise $x^2 - 5x - 6$

....
(2)

(Total for question = 4 marks)

Q4.

(a) Factorise $g^2 + 4g$

....
(2)

(b) Factorise $e^2 - 2e - 24$

....
(2)

(Total for question = 4 marks)

Q5.

(a) Simplify $e^9 \div e^5$

....
(1)

(b) Simplify $(y^2)^8$

....
(1)

(c) Expand and simplify $(x + 9)(x - 2)$

....
(2)

(d) Factorise fully $16c^4p^2 + 20cp^3$

....
(2)

(Total for question = 6 marks)

Q6.

(a) Simplify

(i) $a \times 5 \times b \times c$

....

(ii) $q^5 + q^5 + q^5$

....

(iii) $7m + 6n - 2m - 9n$

....

(4)

(b) Factorise $t^2 - 10t$

....

(2)

(Total for question = 6 marks)

Q7.

(a) Simplify $2a - 5b + 3a - 4b + a$

....

(2)

(b) Factorise $7dg - 9de$

....

(2)

(c) Expand and simplify $(x + 2)(x + 5)$

....

(2)

(Total for Question is 6 marks)

Q8.

(a) Factorise $n^2 + 8n$

....

(2)

(b) Expand and simplify $3(2x - 5) - 4(x + 3)$

....

(2)

(c) Expand and simplify $(y + 7)(y + 2)$

....

(2)

(Total for question = 6 marks)

Q9.

(a) Factorise $3f + 9$

....
(1)

(b) Factorise $x^2 - 2x - 15$

....
(2)

(Total for question = 3 marks)

Q10.

(a) Simplify $4p^3q^5 \times 6p^2q$

....
(2)

(b) Simplify $(5x^2y^4)^3$

....
(2)

(c) Factorise $9a^2 - b^2$

....
(2)

(Total for question = 6 marks)

Q11.

Factorise $10a + 25$

....
(1)

(b) Factorise $7w^2 - 4w$

....
(1)

(c) Expand $p^2(p - 5)$

....
(2)

(d) Expand and simplify $(x - 3)(x + 7)$

....
(2)

$G = f^3 - 7f$

(e) Work out the value of G when $f = 2$

$G =$ ....
(2)

(Total for question = 8 marks)

Q12.

(a) Expand and simplify $(5x + 2)(2x - 3)$

....

(2)

(b) Factorise $x^2 + 4x + 3$

....

(2)

(Total for question = 4 marks)

Q13.

(a) Expand and simplify $3(y - 2) + 5(2y + 1)$

....

(2)

(b) Simplify $5u^2w^4 \times 7uw^3$

....

(2)

(Total for question = 4 marks)

Q14.

(a) Factorise $x^2 - 169$

....
(1)

(b) Expand and simplify $(3x + 2)(2x - 1)$

....
(2)

(Total for question = 3 marks)