

Q1.

(a) Expand and simplify $(x + 5)(x + 9)$

.....

Answer

(2)

(b) Factorise fully $5x^2 - 10xy$

.....

Answer

(2)

(Total 4 marks)

Q2.

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

.....

Answer

(2)

(b) Factorise $y^2 + 2y - 24$

.....

Answer

(2)

(c) Simplify $(2xy^3)^5$

.....

Answer

(2)
 (Total 6 marks)

Q3. You are given that $(2x + 1)(ax + b) \equiv 6x^2 - 5x + c$

Work out the values of a , b and c .

.....

$a = \dots\dots\dots b = \dots\dots\dots c = \dots\dots\dots$

(Total 4 marks)

Q4. Expand and simplify $(2x - 3y)(4x - 5y)$

.....

Answer

(Total 3 marks)

Q5.(a) Expand and simplify $(3x + 2)(2x + 5)$

.....

Answer

(2)

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

.....

Answer

(2)

(Total 4 marks)

Q6.

Expand and simplify $(2x + 1)(3x + 4)$

.....

Answer

(Total 3 marks)

Q7.(a) Multiply out and simplify $(x - 6)(x - 5)$

.....

Answer

(2)

(b) Simplify fully $2a^2b^3 \times 4a^5b^6$

.....

Answer

(2)
 (Total 4 marks)

Q8. Here is an identity $(3x + c)(x + c) \equiv 3x^2 - dx + 16$

c and d are integers.

Work out all possible pairs of values of c and d .
 You **must** show your working.

.....

Answer

(Total 5 marks)

Q9. Expand and simplify $(3x + y)(2x - 5y)$

.....

Answer

(Total 3 marks)

Q10.(a) Expand and simplify $(2x + 1)(x - 2)$

.....

Answer

(3)

(b) Factorise fully $3x^2 - 48y^2$

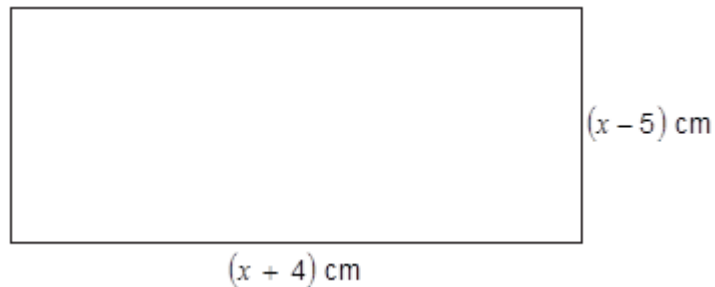
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Answer

(3)

(Total 6 marks)

Q11.The diagram shows a rectangle.



The area of the rectangle is 90 cm^2 .

Set up and solve a quadratic equation to work out the value of x .

.....

$x = \dots\dots\dots \text{ cm}$

(Total 5 marks)

Q12.(a) Expand and simplify $(x + 6)^2$

.....

Answer

(2)

(b) Expand and simplify $9w(3x - 4y) - 5w(x + y)$

.....

Answer

(4)
(Total 6 marks)