Expanding and Factorising Exam Practice

Q1 a) Factorise: $4x^2 + 8x$

(2 marks)

b) Expand : $3(2x + 5)$

(2 marks)

Q2 a) Factorise: $12x^2y - 18xy^4$

(2 marks)

b) Expand: $-8(3x + 4)$

(2 marks)

Q3 a) Factorise $2a^2 - a$

(2 marks)

b) Expand and simplify $20 + 2b(4 - 8b) - 3$

(2 marks)

Q4 a) Expand and simplify $4(5c - 2) + 3(5c + 2)$

(2 marks)

b) Factorise: $y(x + 4) + z(x + 4)$

(2 marks)

Q5 a) Expand and simplify $9(4a + 5) - 2(8a - 3)$

(2 marks)

b) Factorise: $200d - 850cd$

(2 marks)

Q6 a) Simplify $10x \times 3x + 6x(x + 4)$

(2 marks)

b) Factorise: $20c - 72d + 32e$

(2 marks)

Q7 a) Expand $(4 + 3x) \times 2$

(2 marks)

b) Factorise: $4c^2d - cde$

(2 marks)

Q8 a) Expand and simplify $7x(2x - 3) + (3x)^2$

(2 marks)

b) Simplify $2x(x - 9) + 5(x - 9)$

(2 marks)

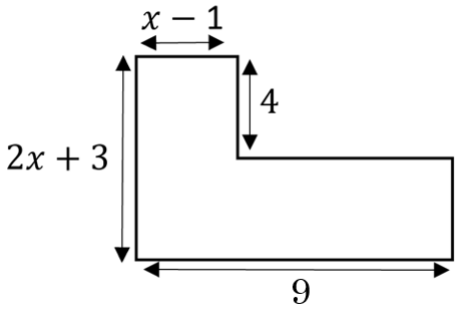
Applied Mixed Practice Problems

Q9. Let a, b be non-zero numbers. Fill in the table.

Factorised form	Expanded form
	$c^8a^4t^6 - c^6a^4t^8$
$-4b(2ab - c + 5)$	
	$(b - a)x + (b - a)y$

(3 marks)

Q10. The plan view of a living room, shown below, has area 42 m^2.



a) Find a fully simplified expression for the area of the living room.

(3 marks)

b) Hence find the length of the shortest wall in the living room.

(2 marks)