

Expanding and Factorising

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NAME _____

DATE _____

1 (a) Expand $7(4t + 3)$

 EITHER PAPER 3 MARKS

(b) Expand $-7(t - 2)$

2 (a) Factorise fully $10x - 2$

 EITHER PAPER 2 MARKS

(b) Factorise fully $36x + 42y$

3 Expand and simplify fully $6(5y + 5) + 4(4y - 2)$

 EITHER PAPER 3 MARKS

4 Write $(x + 2)(x - 3)$ in the form $x^2 + bx + c$, where b and c are integers.

 EITHER PAPER 2 MARKS

5 $3(5k + c) = 15k + 12$

 EITHER PAPER 2 MARKS

Work out the value of c .

6 $12t + 16 = k(3t + 4)$

 EITHER PAPER 2 MARKS

Work out the value of k .

7 Expand and simplify $8(2m - 2) - 4(3m + 7)$

⌂ EITHER PAPER 3 MARKS

8 (a) Factorise completely $30m^2 - 42m$

⌂ EITHER PAPER 4 MARKS

(b) Factorise completely $48mn + 40m$

9 Here is a student's attempt to expand and simplify:

⌂ EITHER PAPER 1 MARK

$$(x^2 + 3x - 12) - (x^2 - x - 10) = x^2 + 3x - 12 - x^2 - x - 10 = 2x - 22$$

Explain what has gone wrong in this working.

10 (a) Multiply out $8(4t - 8)$

⌂ EITHER PAPER 3 MARKS

(b) Multiply out $-5(3t - 6)$

1	(a) $28t + 21$ (b) $-7t + 14$	2	(a) $2(5x - 1)$ (b) $6(6x + 7y)$
3	$46y + 22$	4	$x^2 - x - 6$
5	4	6	4
7	$4m - 44$	8	(a) $6m(5m - 7)$ (b) $8m(6n + 5)$
9	When the bracket was subtracted, the sign of $-x$ was not changed and the sign of -10 was not changed.	10	(a) $32t - 64$ (b) $-15t + 30$