Multiplying a Binomial by a Trinomial (Grade 10)

MEMORANDUM

Name: ..... Class: .....

Date: .....

MARK ____ / 13

Answer all questions. Show all your working — marks are awarded for method as well as the final answer. **Teacher copy: accept any correct equivalent method.**

1 Expand: $(x + 1)(x^2 + 2x + 3)$ (2)

$x^3 + 3x^2 + 5x + 3$ ✓✓ (2)

2 Expand: $(x + 3)(x^2 - x + 2)$ (2)

$x^3 + 2x^2 - x + 6$ ✓✓ (2)

3 Expand: $(2x + 1)(x^2 + 3x - 2)$ (2)

$2x^3 + 7x^2 - x - 2$ ✓✓ (2)

4 Expand: $(x - 2)(x^2 + 2x + 4)$ (2)

$x^3 - 8$ (difference of cubes) ✓✓ (2)

5 Expand: $(x + 5)(x^2 - 5x + 25)$ (2)

$x^3 + 125$ ✓✓ (2)

6 Expand: $(3x - 1)(x^2 - x + 2)$ (2)

$3x^3 - 4x^2 + 7x - 2$ ✓✓ (2)

7 How many products before collecting, for a binomial × trinomial? (1)

Six (2×3) ✓ (1)

TOTAL: 13 marks

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