Expanding three brackets

Grade 6 | Higher | 10 questions, 31 marks

GCSE Maths topic practice

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Name: _____ **Date:** _____ **Score:** _____ **/ 31**

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

Answer _____

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

Answer _____

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

Answer _____

4 Expand and simplify $(x + 1)^3$ (3 marks)

Answer _____

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

Answer _____

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

Answer _____

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

(3 marks)

Answer _____

8 A cuboid has length $(x + 3)$ cm, width $(x + 1)$ cm and height $(x - 2)$ cm, where $x > 2$.

The volume of the cuboid is V cm^3.

Show that $V = x^3 + 2x^2 - 5x - 6$

(3 marks)

Answer _____

9 $(x + 4)(x - 2)(x - 5) = x^3 + ax^2 + bx + c$, where a, b and c are integers.

a. Find the value of a.

b. Find the value of b.

c. Find the value of c.

(4 marks)

Answer _____

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

b. Hence expand and simplify $(x + 2)(2x - 1)(3x + 1)$

(4 marks)

Answer _____

End of questions | Total 31 marks

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