ALBERTA MATH 10C · UNIT 3 · 10 QUESTIONS

Factors and Products — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **When $3x^2 - 10x + 8$ is factored, the result is**

- A $(3x + 4)(x + 2)$
- B $(3x - 2)(x - 4)$
- C $(3x - 4)(x - 2)$
- D $(x - 2)(3x + 4)$

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2 **When $(2x + 1)(3x - 4)$ is expanded, the result can be written in the form $ax^2 + bx + c$. The value of $a + b + c$ is**

ANSWER _____

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3 **When $4x^2 - 20x + 25$ is factored, the result is**

- A $(4x - 5)(x - 5)$
- B $(2x - 5)^2$
- C $(2x + 5)^2$
- D $(2x - 5)(2x + 5)$

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4 **An expression equivalent to $(x - 3)(x + 3) - 2x$ is**

- A $x^2 - 9$
- B $x^2 - 2x + 9$
- C $x^2 - 2x - 9$
- D $x^2 + 2x - 9$

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5 The area of a rectangle is $2x^2 + 11x + 12$ and its length is $(x + 4)$. When the width is written in the form $(ax + b)$, the value of $a + b$ is

ANSWER _____

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6 When $x^4 - 16$ is factored completely, the result is

A $(x - 2)(x + 2)(x^2 + 4)$

B $(x^2 - 4)(x^2 + 4)$

C $(x - 2)^2(x + 2)^2$

D $(x - 2)(x + 2)(x - 4)(x + 4)$

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7 **When $x^3 + 3x^2 + 2x + 6$ is factored, the result is**

- **A** $(x + 2)(x^2 + 3)$
- **B** $(x + 3)(x^2 - 2)$
- **C** $(x + 3)(x^2 + 2)$
- **D** $(x - 3)(x^2 + 2)$

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8 **When $18x^3 + 12x^2$ is divided by $6x^2$, the result is $ax + b$. The value of $2a + b$ is**

ANSWER _____

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9 When $2x^2 - 5x - 12$ is factored, the result is

- A $(2x - 3)(x + 4)$
- B $(2x + 3)(x - 4)$
- C $(x + 3)(2x - 4)$
- D $(2x - 4)(x - 3)$

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10 When $(x + 3)(x - 3)(x + 4)$ is expanded, the coefficient of the x term is

- A -9
- B 4
- C -36
- D 7

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ANSWER KEY

1.	C	**5.**	5	**9.**	B
2.	-3	**6.**	A	**10.**	A
3.	B	**7.**	C		
4.	C	**8.**	8		

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