

Brett Robbins Academic Consulting

Mathematics 10C Practice Test

Unit 3: Factors and Products

10 Questions

Original practice questions written to the Alberta curriculum, in the style of past diploma examinations. Work through each question, then check your answers with the key at the end.

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, contact Brett for clarification.

Question 1

The greatest common factor of $24a^4b^2$ and $36a^2b^5$ is

- A) $6a^2b^2$ B) $12a^2b^2$
C) $12a^3b^3$ D) $36a^2b^2$

Question 2

When $(x + 5)(x - 3)$ is expanded, the result is

- A) $x^2 - 2x - 15$ B) $x^2 + 2x + 15$
C) $x^2 + 8x - 15$ D) $x^2 + 2x - 15$

Question 3

When $x^2 + 9x + 20$ is factored, the result is

- A) $(x + 4)(x + 5)$
B) $(x + 2)(x + 10)$
C) $(x - 4)(x - 5)$
D) $(x + 20)(x + 1)$

Question 4

When $x^2 - 49$ is factored, the result is

- A) $(x - 7)(x - 7)$
B) $(x + 7)(x + 7)$
C) $(x - 7)(x + 7)$
D) $(x - 49)(x + 1)$

Question 5

When $6x^2 - 15x$ is factored completely, the result is

- A) $3(2x^2 - 5x)$ B) $3x(2x - 5)$
C) $x(6x - 15)$ D) $3x(2x + 5)$

Question 6

When $(2x + 3)(x - 4)$ is expanded, the result is

A) $2x^2 - 5x - 12$

B) $2x^2 - 11x - 12$

C) $2x^2 - x - 12$

D) $2x^2 - 5x + 12$

Question 7

When $3x^2 + 12x + 9$ is factored completely, the result is

A) $(3x + 3)(x + 3)$

B) $3(x + 2)^2$

C) $(x + 1)(3x + 9)$

D) $3(x + 1)(x + 3)$

Question 8

When $(4x - 3)(x + 2)$ is expanded, the coefficient of the x term is

Question 9

When $x^2 - 5x - 14$ is factored, the result is

A) $(x - 7)(x - 2)$

B) $(x + 7)(x - 2)$

C) $(x - 7)(x + 2)$

D) $(x + 7)(x + 2)$

Question 10

When $(x + 7)^2$ is expanded, the result is

A) $x^2 + 49$

B) $x^2 + 7x + 49$

C) $x^2 + 14x + 49$

D) $x^2 - 14x + 49$

Answer Key

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

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