

Brett Robbins Academic Consulting

Math 30-1 Practice Test

Polynomial Functions

5 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

When $P(x) = 2x^3 - 5x^2 + 3x - 7$ is divided by $(x - 2)$, the remainder is

- A) 3
- B) -13
- C) 11
- D) -5

Question 2

Which of the following binomials is a factor of the polynomial

function $f(x) = x^3 - 2x^2 - 5x + 6$?

- A) $(x + 3)$
- B) $(x - 1)$
- C) $(x - 4)$
- D) $(x + 1)$

Question 3

For the function $f(x) = -3x^4 + 2x^2 - x + 5$, the degree and leading coefficient are

- A) Degree 4, leading coefficient 3
- B) Degree 5, leading coefficient -3
- C) Degree 4, leading coefficient -3
- D) Degree 2, leading coefficient -3

Question 4

If $P(x) = x^3 - 6x^2 + 11x - 6$, then the value of $P(3)$ is

- A) 0
- B) 6
- C) -2
- D) 2

Question 5

The x -intercepts of the graph of $y = 2(x + 3)(x - 1)(x - 4)$ are

A) $-3, 1, -4$

B) $-3, 1, 4$

C) $3, -1, 4$

D) $3, 1, -4$

Answer Key

- | | | |
|------|------|------|
| 1. D | 3. C | 5. B |
| 2. B | 4. A | |

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