ALASKA ALGEBRA II · UNIT 2 · 10 QUESTIONS

Polynomials and Rational Functions — 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 The horizontal asymptote of $y = \frac{3x + 1}{2x - 5}$ is

- **A** $y = 3$
- **B** $y = 2$
- **C** $y = \frac{3}{2}$
- **D** $y = 0$

Understand It with Pulse | Flag a mistake

2 **In simplest form, $\frac{x^2 - 25}{x - 5}$ is**

A x - 5

B x + 5

C x - 25

D x + 25

Understand It with Pulse | Flag a mistake

3 **The product (1 + i)(1 - i) is**

A 0

B 2

C 1

D 2i

Understand It with Pulse | Flag a mistake

4 **The difference (4 - 3i) - (2 + i) is**

A 2 - 4i

B 2 + 4i

C 6 - 2i

D 2 - 2i

Understand It with Pulse | Flag a mistake

5 **The solution of $x^2 - 4x + 4 = 0$ is**

A -2

B 4

C 2

D 0

Understand It with Pulse | Flag a mistake

6 **For $f(x) = -x^5 + 2x$, as x approaches positive infinity, f(x) approaches**

A positive infinity

B 0

C negative infinity

D 2

Understand It with Pulse | Flag a mistake

7 **The greatest number of zeros of a degree 6 polynomial is**

A 5

B 7

C 12

D 6

Understand It with Pulse | Flag a mistake

8 The domain of $y = \frac{x}{x^2 + x - 6}$ is

- **A** $x \neq 2$ and $x \neq -3$
- **B** $x \neq 2$
- **C** $x \neq -3$
- **D** $x \neq 6$

Understand It with Pulse | Flag a mistake

9 The product of the zeros of $x^2 - 9x + 14$ is

ANSWER _____

Understand It with Pulse | Flag a mistake

10 The constant term of $(x - 5)^2$ in expanded form is

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	C	**5.**	C	**9.**	14
2.	B	**6.**	C	**10.**	25
3.	B	**7.**	D		
4.	A	**8.**	A		

© 2026 Brett Robbins. All Rights Reserved.