MASSACHUSETTS ALGEBRA 2 · 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 **In simplest form, $x^2 - 25/x + 5$, for $x \neq -5$, is**

- **A** x - 5
- **B** x + 25
- **C** x - 25
- **D** x + 5

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2 For $(x + 3)^3(x - 1)$, the multiplicity of the zero -3 is

- A 3
- B 4
- C 1
- D 2

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3 As $x \to -\infty$, the value of $2x^3 + x$ approaches

- A 2
- B positive infinity
- C negative infinity
- D 0

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4 **The graph of $y = x^2 - 9/x + 3$ has a hole at**

- **A** $x = 3$
- **B** $x = -3$
- **C** $x = 9$
- **D** $y = -3$

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5 **The quotient of $(x^2 - 5x + 6) \div (x - 2)$ is**

- **A** $x + 3$
- **B** $x - 3$
- **C** $x + 2$
- **D** $x - 2$

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6 **The zeros of $x^2 + 9$ are**

- **A** 9, -9
- **B** none
- **C** 3, -3
- **D** 3i, -3i

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7 **The sum $2/x + 3/x$ is**

- **A** $\frac{1}{x}$
- **B** $\frac{5}{x}$
- **C** $\frac{6}{x}$
- **D** $\frac{5}{2x}$

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8 The solution of $\frac{4}{x} = 2$ is

A x = 8

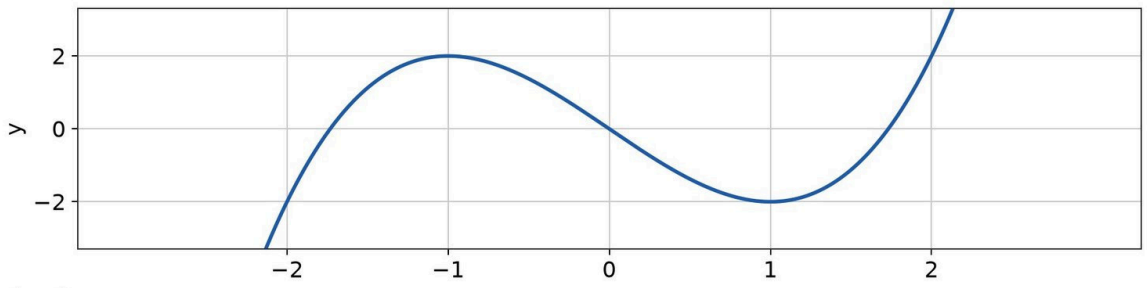
B x = 4

C x = 2

D x = 1

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9 The graph below shows $y = x^3 - 3x$. The sum of its zeros is



ANSWER _____

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10 **The product of the zeros of $x^2 - 4x + 3$ is**

A -4

B 3

C -3

D 4

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ANSWER KEY

1.	A	**5.**	B	**9.**	0
2.	A	**6.**	D	**10.**	B
3.	C	**7.**	B		
4.	B	**8.**	C		

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