NUNAVUT MATHEMATICS 20-1 · UNIT 5 · 10 QUESTIONS

Rational Expressions — 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 simplified, $\frac{x^2 - 16}{x^2 + 3x} \div \frac{x - 4}{x}$ is equivalent to

A $\frac{x - 4}{x + 3}$

B $\frac{x + 4}{x}$

C $\frac{x + 4}{x - 3}$

D $\frac{x + 4}{x + 3}$

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2 When simplified, $\frac{5}{x^2 - x - 6} - \frac{2}{x - 3}$ is equivalent to

A $\frac{2x + 9}{(x - 3)(x + 2)}$

B $\frac{3}{(x - 3)(x + 2)}$

C $\frac{1 - 2x}{(x - 3)(x + 2)}$

D $\frac{1 - 2x}{x + 2}$

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3 The solution to the equation $\frac{5}{x - 2} = \frac{3}{x + 4}$ is x = ____

ANSWER _____

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4 The solution to the equation $\frac{x}{x-4} = \frac{4}{x-4} + 3$ is

- **A** $x = 4$
- **B** There is no solution
- **C** $x = -4$
- **D** $x = 2$

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5 When simplified, $\frac{x^2 + 5x + 4}{x^2 - 4} \cdot \frac{x - 2}{x + 1}$ is equivalent to

- **A** $\frac{x + 4}{x + 2}$
- **B** $\frac{x + 1}{x + 2}$
- **C** $\frac{x + 4}{x - 2}$
- **D** $\frac{x^2 + 4}{x + 2}$

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6 **Dana can clean a house in 4 hours, and her partner can clean the same house in 6 hours. Working together, the time, in hours, that they take to clean the house is ____**

ANSWER _____

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7 **When simplified, $\frac{16 - x^2}{x - 4}$ is equivalent to**

A x + 4

B -x + 4

C x - 4

D -x - 4

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8 **When $\frac{x^2 - 4x - 12}{x^2 - 36}$ is simplified and then evaluated at x = 2, its value is equal to ____**

ANSWER _____

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9 When simplified, $\frac{2}{x^2 + 4x + 3} + \frac{1}{x + 1}$ is equivalent to

A $\frac{x + 3}{(x + 1)(x + 3)}$

B $\frac{x + 5}{(x + 1)(x + 3)}$

C $\frac{2x + 5}{(x + 1)(x + 3)}$

D $\frac{x + 5}{x + 3}$

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10 When simplified, $\frac{1 + \frac{1}{x}1 - 1}{x}$ is equivalent to

A $\frac{x - 1}{x + 1}$

B 1

C $\frac{x + 1}{x - 1}$

D -1

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ANSWER KEY

1. D
2. C
3. -13
4. B
5. A
6. 2.4
7. D
8. 0.5
9. B
10. C

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