ALBERTA MATH 30-2 · UNIT 4 · 10 QUESTIONS

Rational Expressions and Equations — 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 written in simplest form, $\frac{x^2 - 25}{x^2 + 7x + 10}$ is equal to

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

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2 The difference $\frac{x}{x-3} - \frac{2}{x}$ is equal to

A $\frac{x^2 - 2x + 6}{x(x - 3)}$

B $\frac{x - 2}{x - 3}$

C $\frac{x^2 + 6}{x(x - 3)}$

D $\frac{x^2 - 2x + 6}{x - 3}$

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3 The solution to the equation $\frac{5}{x} = \frac{3}{x-2}$ is ____ Record your answer as an integer.

ANSWER _____

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4 The quotient $\frac{x^2 + 4x}{x - 1} \div \frac{x}{x - 1}$ is equal to

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

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5 The equation $\frac{3x}{x - 1} = \frac{3}{x - 1}$ has

- **A** a solution of $x = 0$
- **B** a solution of $x = 1$
- **C** a solution of $x = 3$
- **D** no solution

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6 **A worker can complete a job in 12 hours, and a second worker can complete the same job in 6 hours. Working together, the time taken to complete the job is ____ hours. Record your answer as an integer.**

ANSWER _____

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7 **The sum $\frac{2x}{x^2 - 9} + \frac{1}{x + 3}$ is equal to**

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

B $\frac{3x - 3}{x^2 - 9}$

C $\frac{2x + 1}{x + 3}$

D $\frac{3x - 3}{x - 3}$

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8 The solution to the equation $\frac{2x + 1}{x - 3} = 3$ is

A -10

B 4

C 10

D $\frac{10}{3}$

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9 The non-permissible values of $\frac{5}{x^2 + 2x - 8}$ are m and n. The value of mn is ____ Record your answer as an integer.

ANSWER _____

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10 The quotient $\frac{x^2 - 9}{x + 2} \div \frac{x - 3}{x^2 - 4}$ is equal to

A $x^2 + x - 6$

B $x^2 - 5x + 6$

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

D $x^2 + x + 6$

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ANSWER KEY

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

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