

WORKSHEET

Algebraic Fractions

Unsolved with Answer key



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Algebraic Fractions

Question 1. Simplify the expression: $(2x^2 - 8)/4x$

Question 2. Simplify the expression: $(x^2 - 9)/(x^2 - 6x + 9)$

Question 3. Solve the equation: $\{x + 2\}/\{x - 1\} = \{3\}/\{x - 1\}$

Question 4. Simplify and state the restrictions: $\{x^2 - 4\}/\{x^2 - x - 6\}$.

Question 5. Solve the equation: $\{2\}/\{x - 3\} + \{3\}/\{x + 3\} = \{5\}/\{x^2 - 9\}$.

Question 6. Solve for x : $\{3x\}/\{x - 1\} = \{x + 2\}/\{x - 1\}$.

Question 7. Simplify the complex fraction: $(\{2\}\{x\} + \{3\}\{y\})/(\{4\}/\{xy\})$

Question 8. Solve the equation and check for extraneous solutions: $\{2x + 3\}/\{x - 1\} = \{4\}/\{x - 1\}$.

Question 9. Add the algebraic fractions and simplify : $\{1\}/\{x + 2\} + \{2\}/\{x - 2\}$.

Question 10. Subtract and simplify : $\{x\}/\{x + 3\} - \{2\}/\{x - 3\}$

Answer Key

Algebraic Fractions

Answer 1 : $(x^2-4)/2x$

Answer 2 : $(x + 3)/(x - 3)$

Answer 3 : $x=1$

Answer 4 : Simplify by canceling common factors : $(x - 2)/(x - 3)$

State the restrictions (denominator cannot be zero) : $x \neq 3$

Answer 5 : $x = 8/5$

Answer 6 : $x=1$

Answer 7 : $(2x^2y+3xy^2)/4$

Answer 8 : $x = 1/2$

Answer 9 : $(3x+2)/(x^2-4)$

Answer 10 : $((x-6)(x + 1)) / ((x + 3)(x - 3))$