

ACTION

RESPONSE

Simplify the following algebraic expressions:

1. $\frac{x^2 + 7x + 12}{x^2 + 10x + 21}$

4. $\frac{x^2 - 7x + 12}{x^2 + 2x - 24}$

2. $\frac{x^2 + 7x + 10}{x^2 + 8x + 15}$

5. $\frac{x^2 - 4}{x^2 + 6x - 16}$

3. $\frac{x^2 + x - 2}{x^2 + 6x - 7}$

6. $\frac{x^2 - 25}{x^2 - 4x - 45}$

Explain the mistakes below and show the correct working:

a) $\frac{x^2 - x - 2}{x^2 + x - 6} = \frac{\cancel{x^2} - x - \cancel{2} \div 2}{\cancel{x^2} + x - \cancel{6} \div 2} = \frac{-x - 1}{x - 3} = \frac{x + 1}{x - 3}$

Reasoning



Problem Solving



An expression that can be written in the form: $\frac{ax^2 + bx - c}{dx^2 - e}$

Simplifies to: $\frac{x - 1}{2x - 3}$

What was the original expression?



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An expression that can be written in the form: $\frac{ax^2 + bx - c}{dx^2 - e}$

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