

1. Find the domain of $\frac{x^2-2x-15}{3x^2+8x-3}$ and then simplify the rational expression.

2. Simplify: $\frac{x^2+2xy-3y^2}{2x^2+5xy-3y^2}$

3. Multiply and simplify: $\frac{x^2+4x+4}{x^2+8x+16} \cdot \frac{(x+4)^3}{(x+2)^3}$

4. Multiply and simplify: $\frac{6y+2}{y^2-1} \cdot \frac{1-y}{3y^2+y}$

5. Divide and simplify: $\frac{x^2-x}{15} \div \frac{x-1}{5}$

6. Divide and simplify: $(x^2 + 4x - 5) \div \frac{x^2-25}{x+7}$

Q: A man rode his horse into town on Tuesday. Two days later he rode home on Tuesday. How is this possible?