

Simplifying Rational Expressions using Factoring

Simplify each expression.

1. $\frac{c-5}{c^2-25}$

2. $\frac{4m-12}{3-m}$

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

4. $\frac{x^2-14x+49}{3x-21}$

Multiply or divide.

5. $\frac{x-5}{4x+6} \cdot \frac{6x+9}{3x-15}$

6. $\frac{x^2+3x+2}{x^2-4x+3} \div \frac{x+2}{3-x}$

7. $\frac{2x^2-5x-3}{4x^2-12x-7} \cdot \frac{2x-7}{4x+5}$

8. $\frac{5m+10}{2m-20} \div \frac{7m+14}{14m-20}$