

Rational Expressions 2.1  
Algebra 2

Simplify.

1)  $\frac{42x^4y^3}{126x^2y^7}$

2)  $\frac{-3x+12}{4x-16}$

3)  $\frac{x^2-3x-10}{x^2-25}$

4)  $\frac{3x^2-5x-2}{6x^2-4x-2}$

5)  $\frac{14}{12} \cdot \frac{4}{21}$

6)  $\frac{3}{4} \cdot \frac{7}{8}$

7)  $\frac{14a^2b}{25c^2d^3} \cdot \frac{10cd}{21ab^2}$

8)  $\frac{8pq^2}{17z} \div \frac{2p^2q}{51z^2}$

9)  $\frac{6x-3}{x+3} \cdot \frac{2}{6x-6}$

10)  $\frac{x^2+6x+9}{x-7} \cdot \frac{2x+8}{x^2+5x+6}$

11)  $\frac{x^2-x-12}{4x^2-16} \div \frac{x^2+7x+12}{x^2-x-6}$

12)  $\frac{3}{4} + \frac{2}{5}$

13)  $\frac{5}{7} - \frac{1}{3}$

14)  $\frac{5}{6} + \frac{1}{6x}$

15)  $\frac{7}{8d} - \frac{2a}{6}$

16)  $\frac{3a^2}{4b} + \frac{4b}{5a}$

17)  $\frac{3x+2}{3x^2-9x} + \frac{4}{x-3}$

18)  $\frac{5x+2}{x^2-8x+16} - \frac{x+4}{x-4}$

19)  $\frac{4x}{x^2-64} + \frac{2x+1}{x^2-6x-16}$