

Simplifying Rational Expressions

Step 1: Factor the numerator and denominator completely.

Step 2: Cancel common factors.

1. Simplify each expression.

a) $\frac{18}{16x+32}$

b) $\frac{x^2-25}{x^2+5x-50}$

c) $\frac{4a+4b}{8a^2-8b^2}$

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

e) $\frac{3x^2+x}{3x+1}$

f) $\frac{x^2-y^2}{(x+y)^2}$

g) $\frac{x^2 + x - 56}{x^2 + 20x + 96}$