

Rational Expressions

Simplify each expression.

1) $\frac{r^2 - 3r - 40}{7r^2 - 56r}$

2) $\frac{7k^2 + 9k - 10}{3k^2 + 11k + 10}$

3) $\frac{x^2 + 9x - 10}{2} \cdot \frac{x + 4}{x^2 + 14x + 40}$

4) $\frac{b + 5}{b^2 + 10b + 25} \div \frac{b + 5}{5b^2 + 25b}$

5) $\frac{4}{2x^2 - x - 15} \div \frac{1}{2x + 5}$

6) $\frac{3n^2 - 4n - 7}{n + 4} \cdot \frac{1}{3n - 7}$

Rational Expressions

Simplify each expression.

1) $\frac{r^2 - 3r - 40}{7r^2 - 56r}$

$$\frac{r+5}{7r}$$

2) $\frac{7k^2 + 9k - 10}{3k^2 + 11k + 10}$

$$\frac{7k-5}{3k+5}$$

3) $\frac{x^2 + 9x - 10}{2} \cdot \frac{x+4}{x^2 + 14x + 40}$

$$\frac{x-1}{2}$$

4) $\frac{b+5}{b^2 + 10b + 25} \div \frac{b+5}{5b^2 + 25b}$

$$\frac{5b}{b+5}$$

5) $\frac{4}{2x^2 - x - 15} \div \frac{1}{2x+5}$

$$\frac{4}{x-3}$$

6) $\frac{3n^2 - 4n - 7}{n+4} \cdot \frac{1}{3n-7}$

$$\frac{n+1}{n+4}$$