

Dividing Rational Expressions

Simplify each expression.

1) $\frac{9}{5n^2} \div \frac{4}{6n^2}$

2) $\frac{8}{6} \div \frac{9b}{9}$

3) $\frac{2(k-7)}{4(k-7)} \div \frac{2}{9k^2}$

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

5) $\frac{10(x-6)}{3(5x+1)} \div \frac{9x^2}{3(5x+1)}$

6) $\frac{(r+10)(r-9)}{r+6} \div \frac{(r+10)(r-9)}{6(r+6)}$

7) $\frac{1}{k+2} \div \frac{3}{8k^2+16k}$

8) $\frac{a-2}{a^2-8a-20} \div \frac{1}{a^2-8a-20}$

$$9) \frac{x-8}{x+5} \div \frac{5-x}{x^2-25}$$

$$10) \frac{4}{x+1} \div \frac{7x^2-42x}{7x^2+7x}$$

$$11) \frac{a-8}{3-a} \div \frac{2a+14}{a-3}$$

$$12) \frac{4n-20}{n-5} \div \frac{n^2+9n+8}{2n^3+16n^2}$$

$$13) \frac{x^2+3x-10}{x^2-4x+4} \div \frac{10x^2+50x}{2x-4}$$

$$14) \frac{x^2-1}{x^2-7x+6} \div \frac{9x+9}{9x-81}$$

$$15) \frac{x^2-4x+3}{x-2} \div \frac{7-7x}{7x-42}$$

$$16) \frac{x+10}{8x^3+80x^2} \div \frac{x^2-x-2}{6x^3+6x^2}$$