

Perform the indicated operation.

2.)  $\frac{8x^2}{x-4} \div \frac{8x^2}{16x^4}$

$$\bullet \frac{\cancel{8x^2}}{x-4} \cdot \frac{16x^4}{\cancel{8x^2}}$$

$$\bullet \frac{16x^4}{x-4}$$

4.)  $\frac{n+5}{10} \div \frac{n+6}{3n+18}$

$$\bullet \frac{n+5}{10} \cdot \frac{3(\cancel{n+6})}{(\cancel{n+6})}$$

$$\bullet \frac{3(n+5)}{10}$$

6.)  $(b+6) \cdot \frac{10b}{2b+12}$

$$\bullet \frac{(b+6)}{1} \cdot \frac{10b}{2(b+6)}$$

$$\bullet \frac{10b}{2}$$

$$\bullet 5b$$

8.)  $\frac{9v^2+15v}{8} \div \frac{9v^2+15v}{7}$

$$\bullet \frac{3v(3v+5)}{8} \cdot \frac{7}{3v(3v+5)}$$

$$\bullet \frac{7}{8}$$

10.)  $\frac{x^2-15x+54}{x^2-14x+48} \div \frac{1}{x-8}$

$$\bullet \frac{(x-9)(\cancel{x-6})}{(\cancel{x-6})(x-8)} \cdot \frac{(\cancel{x-8})}{1}$$

$$\bullet x-9$$

12.)  $\frac{3x-9}{x-6} \div \frac{x^2-11x+24}{x-6}$

$$\bullet \frac{3(\cancel{x-3})}{(\cancel{x-6})} \cdot \frac{(\cancel{x-6})}{(x-8)(\cancel{x-3})}$$

$$\bullet \frac{3}{x-8}$$

14.)  $\frac{a-4}{a^2-16} \cdot \frac{a^2+5a+4}{a-5}$

$$\bullet \frac{(\cancel{a-4})}{(a-4)(\cancel{a+4})} \cdot \frac{(a+4)(\cancel{a+1})}{(a-5)}$$

$$\bullet \frac{a+1}{a-5}$$

16.)  $\frac{k^2-6k-27}{k+1} \cdot \frac{k+1}{4}$

$$\bullet \frac{(k-9)(\cancel{k+3})}{\cancel{k+1}} \cdot \frac{\cancel{k+1}}{4}$$

$$\bullet \frac{(k-9)(k+3)}{4}$$

$$18.) \frac{x^2-8x+12}{x^2-16} \div \frac{4x+16}{x^2-4x+4}$$

$$\bullet \frac{(x-6)(x-2)}{(x+4)(x-4)} \cdot \frac{(x-2)(x-2)}{4(x+4)}$$

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

$$20.) \frac{3m^2-3m-36}{2m^2+8m-10} \div \frac{m^2-m-12}{m^2+3m-10}$$

$$\bullet \frac{3(m^2-m-12)}{2(m^2+4m-5)} \cdot \frac{(m+5)(m-2)}{(m-4)(m+3)}$$

$$\bullet \frac{3(m-4)(m+3)}{2(m+5)(m-1)} \cdot \frac{(m+5)(m-2)}{(m-4)(m+3)}$$

$$\bullet \frac{3(m-2)}{2(m-1)}$$

$$22.) \frac{5m^2-20m-105}{4m^2-16} \div \frac{3m^2-12m-63}{8-2m^2}$$

$$\bullet \frac{5(m^2-4m-21)}{4(m^2-4)} \cdot \frac{-2(m^2-4)}{3(m^2-4m-21)}$$

$$\bullet \frac{-10}{12}$$

$$\bullet \frac{-5}{6}$$

$$24.) \frac{12x^4y^2}{40a^4b^4} \div \frac{6x^2y^4}{16a^2x}$$

$$\bullet \frac{2^2x^4y^2}{40A^4B^4} \cdot \frac{2^2A^2x}{16A^2x^2y^4}$$

$$\bullet \frac{4A^2x^5y^2}{5A^4B^4x^2y^4}$$

$$\bullet \frac{4x^3}{5A^2B^4y^2}$$

$$26.) \frac{3x^2-17x-6}{4x^2-20x-24} \div \frac{6x^2-7x-3}{2x^3-x-3}$$

$$\bullet \frac{(3x+1)(x-6)}{4(x-6)(x+1)} \div \frac{(3x+1)(2x-3)}{(2x-3)(x+1)}$$

$$\bullet \frac{(3x+1)(x-6)}{4(x-6)(x+1)} \cdot \frac{(2x-3)(x+1)}{(3x+1)(2x-3)}$$

$$\bullet \frac{1}{4}$$

$$28.) \frac{4x^2-1}{3x^3-6x^2-24x} \div \frac{3x^3-6x^2-24x}{12x^2+12x-9}$$

$$\bullet \frac{4x^2-1}{3x^3-6x^2-24x} \div \frac{12x^2+12x-9}{-2x^2+5x+12}$$

$$\bullet \frac{(2x+1)(2x-1)}{3x(x^2-2x-8)} \cdot \frac{-2x^2+5x+12}{3(4x^2+4x-3)}$$

$$\bullet \frac{(2x+1)(2x-1)}{3x(x-4)(x+2)} \cdot \frac{-1(2x^2-5x-12)}{3(2x+3)(2x-1)}$$

$$\bullet \frac{(2x+1)(2x-1)}{3x(x-4)(x+2)} \cdot \frac{-1(x-4)(2x+3)}{3(2x+3)(2x-1)}$$

$$\bullet -\frac{(2x+1)}{9x(x+2)}$$