

Divide: $\frac{\frac{6x^2-7x+2}{4x-8}}{\frac{2x^2-7x+3}{x^2-5x+6}}$

$$\frac{6x^2-7x+2}{4x-8} \div \frac{2x^2-7x+3}{x^2-5x+6}$$

$$\frac{6x^2-7x+2}{4x-8} \cdot \frac{x^2-5x+6}{2x^2-7x+3}$$

$$\frac{(3x-2)(2x-1)}{4(x-2)} \cdot \frac{(x-5)(x-2)}{(2x-1)(x-5)}$$

$$\frac{3x-2}{4}$$

Simplify: $\frac{\frac{y^2-36}{2y^2+11y-6}}{\frac{2y^2-2y-60}{8y-4}}$

$$2 \cdot -6 = -12$$

$$-1 \cdot 12$$

$$(2y^2 - y) + (2y - 6)$$

$$y(2y-1) + 6(2y-1)$$

$$(2y-1)(y+6)$$

$$\frac{y^2-36}{2y^2+11y-6} \div \frac{2y^2-2y-60}{8y-4}$$

$$\frac{y^2-36}{2y^2+11y-6} \cdot \frac{8y-4}{2y^2-2y-60} \quad 4(2y-1)$$

$$\frac{(y-6)(y+6)}{(2y-1)(y+6)} \cdot \frac{4(2y-1)}{2(y-6)(y+5)}$$

$$\frac{4}{2(y+5)} = \frac{2}{y+5}$$

Simplify: $\frac{\frac{y^2-36}{2y^2+11y-6}}{\frac{2y^2-2y-60}{8y-4}}$.

Perform the indicated operations: $\frac{3x-6}{4x-4} \cdot \frac{x^2+2x-3}{x^2-3x-10} \div \frac{2x+12}{8x+16}$.

$$\frac{3x-6}{4x-4} \cdot \frac{x^2+2x-3}{x^2-3x-10} \cdot \frac{8x+16}{2x+12}$$

$$\frac{3(x-2)}{4(x-1)} \cdot \frac{(x+3)(x-1)}{(x-5)(x+2)} \cdot \frac{8(x+2)}{2(x+6)}$$

$$\frac{3(x-2)(x+3)}{(x-5)(x+6)}$$

Perform the indicated operations: $\frac{4m+4}{3m-15} \cdot \frac{m^2-3m-10}{m^2-4m-32} \div \frac{12m-36}{6m-48}$.

$$\frac{4m+4}{3m-15} \cdot \frac{m^2-3m-10}{m^2-4m-32} \cdot \frac{6m-48}{12m-36}$$

$$\frac{4(m+1)}{3(m-5)} \cdot \frac{(m-5)(m+2)}{(m-8)(m+4)} \cdot \frac{6(m-8)}{12(m-3)}$$

$$\frac{24(m+1)(m+2)}{36(m+4)(m-3)} = \frac{2(m+1)(m+2)}{3(m+4)(m-3)}$$

Perform the indicated operations: $\frac{2n^2+10n}{n-1} \div \frac{n^2+10n+24}{n^2+8n-9} \cdot \frac{n+4}{8n^2+12n}$

$$\frac{2n^2+10n}{n-1} \cdot \frac{n^2+8n-9}{n^2+10n+24} \cdot \frac{n+4}{8n^2+12n}$$

$$\frac{2\cancel{n}(n+5)}{\cancel{n-1}} \cdot \frac{(n+9)\cancel{(n-1)}}{(n+6)(n+4)} \cdot \frac{\cancel{n+4}}{4n(2n+3)}$$

$$\frac{2(n+5)(n+9)}{4(n+6)(2n+3)} = \frac{(n+5)(n+9)}{2(n+6)(2n+3)}$$