Simplify completely.

$$\frac{x^2 - 4}{x^2 - 2x - 8}$$

$$\frac{1}{m^2 - m - 2} - \frac{1}{m^2 + 3m + 2}$$

$$\frac{10 + 3x - x^2}{x^2 - 4x - 5}$$

$$\frac{m - \dfrac{1}{m^2 - 4}}{\dfrac{1}{m + 2}}$$

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

$$\frac{x^2 - 4x - 32}{x^2 - 8x - 48} \cdot \frac{3x^2 + 17x + 10}{3x^2 - 22x - 16}$$

$$\frac{5}{9x^2} + \frac{1}{6x}$$

$$\frac{y^2 - y - 56}{y^2 + 8y + 7} \div \frac{y^2 - 13y + 40}{y^2 - 4y - 5}$$

$$\frac{2x}{2x - 3} - \frac{1}{x + 1}$$

$$\frac{6n^2 + 13n + 6}{4n^2 - 9} \div \frac{6n^2 + n - 2}{4n^2 - 1}$$

$$\frac{2x - 3}{3x^2 - x - 2} + \frac{5}{3x + 2} - \frac{1}{x - 1}$$

$$\frac{1 - \dfrac{2}{x} - \dfrac{15}{x^2}}{1 - \dfrac{11}{x} + \dfrac{30}{x^2}}$$

$$\frac{3p^2 + 11p - 4}{24p^3 - 8p^2} \div \frac{9p + 36}{24 - 36p^3}$$

$$\frac{y + 2}{y^2 - y} - \frac{3y}{2y^2 - 4y + 2}$$

$$\frac{\dfrac{1}{3} - \dfrac{1}{x}}{\dfrac{1}{9} - \dfrac{1}{x^2}}$$

$$\frac{6 - \dfrac{5}{k}}{1 + \dfrac{5}{k}}$$