$$\frac{x^2+6x}{x^2-36} = \frac{x(x+6)}{(x-6)(x+6)} = \frac{x}{x-6}$$

$$\frac{a^2-10a+25}{a^2-5a} = \frac{(a-5)(a-5)}{a(a-5)} = \frac{a-5}{a}$$

$$\frac{a^2+5a+ab+5b}{a^2-b^2} = \frac{a(a+b)+5(a+b)}{(a-b)(a+b)} =$$

$$= \frac{(a+b)(a+5)}{(a-b)(a+b)} = \frac{a+5}{a-b}$$

$$\frac{n^2-4n+4}{mn-2m-pn+2p} = \frac{(n-2)(n-2)}{m(n-2)-p(n-2)} =$$

$$= \frac{(n-2)(n-2)}{(n-2)(m-p)} = \frac{n-2}{m-p}$$