

1	$\frac{q+p}{2q+p}$	$\frac{(2t-1)(t+1)}{t-1}$
2) $-\frac{3}{10}$	$\frac{1+x^2}{x}$	$\frac{2uv}{u^2+v^2}$
4) $z+1$	$\frac{1}{y+x}$	u^2+2u
6) x	$\frac{t+1}{t-1}$	$-\frac{1}{x}$
8) $\frac{b-a}{ab}$	$2x+1$	
10)		

$$8) \frac{1-xy^{-1}}{x^{-1}-y^{-1}} = \frac{(1-xy^{-1}) \div (x^{-1}-y^{-1})}{(1-\frac{x}{y}) \div (\frac{1}{x}-\frac{1}{y})}$$

$$= \frac{(\frac{y-x}{y}) \div (\frac{y-x}{xy})}{\frac{y-x}{y} \cdot \frac{xy}{y-x}}$$

$$= x$$

$$10) \frac{a^{-2}-b^{-2}}{a^{-1}+b^{-1}} = \frac{(a^{-2}-b^{-2}) \div (a^{-1}+b^{-1})}{(\frac{1}{a^2}-\frac{1}{b^2}) \div (\frac{1}{a}+\frac{1}{b})}$$

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

$$= \frac{b-a}{ab}$$

$$12) \frac{\frac{1}{p^2} - \frac{1}{q^2}}{\frac{2}{p^2} - \frac{1}{pq} - \frac{1}{q^2}} = \frac{(\frac{1}{p^2} - \frac{1}{q^2}) \div (\frac{2}{p^2q^2} - \frac{1}{pq} - \frac{1}{q^2})}{(\frac{q^2-p^2}{p^2q^2}) \div (\frac{2q^2-pq-p^2}{p^2q^2})}$$

$$= \frac{(q+p)(q-p)}{p^2q^2} \cdot \frac{p^2q^2}{(2q+p)(q-p)}$$

$$= \frac{q+p}{2q+p}$$

$$14) \frac{x^{-2}-x^2}{x^{-1}-x} = \frac{(x^{-2}-x^2) \div (x^{-1}-x)}{(\frac{1}{x^2}-\frac{x^2}{1x^2}) \div (\frac{1}{x}-\frac{x}{1x})}$$

$$= \frac{(\frac{1-x^4}{x^2}) \div (\frac{1-x^2}{x})}{\frac{(1-x^2)(1+x^2)}{x^2} \cdot \frac{x}{1-x^2}}$$

$$= \frac{1+x^2}{x}$$

$$24) \frac{\frac{u+v}{u-v} - \frac{u-v}{u+v}}{\frac{u+v}{u-v} + \frac{u-v}{u+v}} = \frac{(\frac{(u+v)(u+v) - (u-v)(u-v)}{(u-v)(u+v)}) \div (\frac{(u+v)(u+v) + (u-v)(u-v)}{(u-v)(u+v)})}{\frac{(u+v)^2 - (u-v)^2}{(u-v)(u+v)} \div \frac{(u+v)^2 + (u-v)^2}{(u-v)(u+v)}}$$

$$= \frac{(u^2+2uv+v^2) - (u^2-2uv+v^2)}{(u-v)(u+v)} \cdot \frac{(u-v)(u+v)}{(u+v)^2 + (u-v)^2}$$

$$= \frac{4uv}{2u^2+2v^2} = \frac{2uv}{u^2+v^2}$$