$$\frac{\dfrac{x}{x+y} + \dfrac{y}{x-y}}{\dfrac{x}{x-y} - \dfrac{y}{x+y}} = \frac{\dfrac{x\cdot(x-y) + y\cdot(x+y)}{(x+y)\cdot(x-y)}}{\dfrac{x}{x-y} - \dfrac{y}{x+y}}$$

$$\frac{\dfrac{x\cdot(x-y) + y\cdot(x+y)}{(x+y)\cdot(x-y)}}{\dfrac{x}{x-y} - \dfrac{y}{x+y}} = \frac{\dfrac{x\cdot(x-y) + y\cdot(x+y)}{(x+y)\cdot(x-y)}}{\dfrac{x\cdot(x+y) - y\cdot(x-y)}{(x-y)\cdot(x+y)}}$$

$$\frac{\dfrac{x\cdot(x-y) + y\cdot(x+y)}{(x+y)\cdot(x-y)}}{\dfrac{x\cdot(x+y) - y\cdot(x-y)}{(x-y)\cdot(x+y)}} = \frac{\dfrac{(x^2 - xy) + (xy + y^2)}{(x+y)\cdot(x-y)}}{\dfrac{(x^2 + xy) - (xy - y^2)}{(x-y)\cdot(x+y)}}$$

$$\frac{\dfrac{(x^2 - xy) + (xy + y^2)}{(x+y)\cdot(x-y)}}{\dfrac{(x^2 + xy) - (xy - y^2)}{(x-y)\cdot(x+y)}} = \frac{\dfrac{x^2 + y^2}{(x+y)\cdot(x-y)}}{\dfrac{x^2 + y^2}{(x-y)\cdot(x+y)}}$$

$$\frac{\dfrac{x^2 + y^2}{(x+y)\cdot(x-y)}}{\dfrac{x^2 + y^2}{(x-y)\cdot(x+y)}} = \frac{x^2 + y^2}{(x+y)\cdot(x-y)} \cdot \frac{(x-y)\cdot(x+y)}{x^2 + y^2}$$

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

$$=1$$