

$$11.) \frac{1}{x+2} + \frac{1}{x-2} = \frac{4}{x^2-4} \quad \text{LCD} \frac{1}{(x-2)(x+2)}$$

$$(x+2)(x-2) \left(\frac{1}{x+2} + \frac{1}{x-2} = \frac{4}{(x-2)(x+2)} \right)$$

$$\frac{(x+2)(x-2)}{x+2} + \frac{(x+2)(x-2)}{x-2} = \frac{4(x+2)(x-2)}{(x-2)(x+2)}$$

$$x-2 + x+2 = 4$$

$$\frac{2x}{2} = \frac{4}{2}$$

$$x = 2$$

Check

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

If we plug in 2 we would get

$$\frac{1}{4} + \frac{1}{0} = \frac{4}{0}$$

this is undefined
therefore there is

No solution