

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

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

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

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

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

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

c.a.: $x \neq 1 \wedge x \neq 2 \wedge x \neq 0$

ind: $x \neq 1 \wedge x \neq 2 \wedge x \neq 0$