

Aufgabe 3.22 g)

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

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