

$$a) \quad z = \sqrt{\frac{x}{x+y}}$$

$$\Rightarrow$$

$$z^2 = \frac{x}{x+y}$$

$$z^2(x+y) = x$$

$$z^2x + z^2y = x$$

$$z^2y = x - z^2x$$

$$z^2y = x(1 - z^2)$$

$$x = \frac{z^2y}{1 - z^2}$$

Samla x:en på en sida

bryt ut x.

$$b) \quad \frac{N}{n} = \sqrt{\frac{a+b}{a-b}}$$

$$\Rightarrow$$

$$\frac{N^2}{n^2} = \frac{a+b}{a-b}$$

$$(a-b)N^2 = (a+b)n^2$$

$$aN^2 - bN^2 = an^2 + bn^2$$

$$aN^2 - an^2 = bN^2 + bn^2$$

$$a(N^2 - n^2) = bN^2 + bn^2$$

$$a = \frac{bN^2 + bn^2}{N^2 - n^2} = \frac{b(N^2 + n^2)}{N^2 - n^2}$$