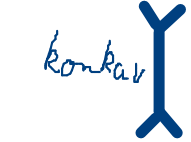
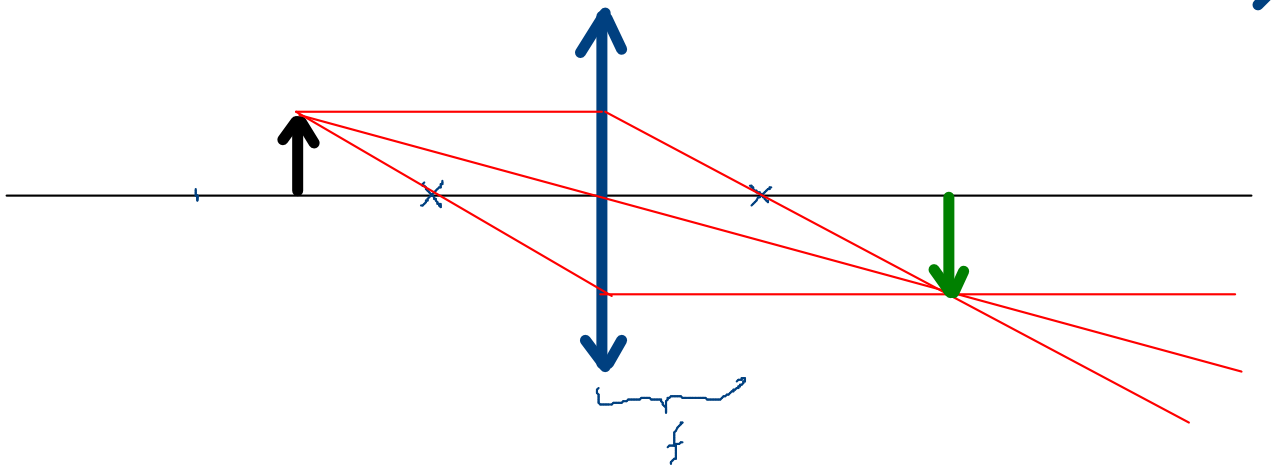
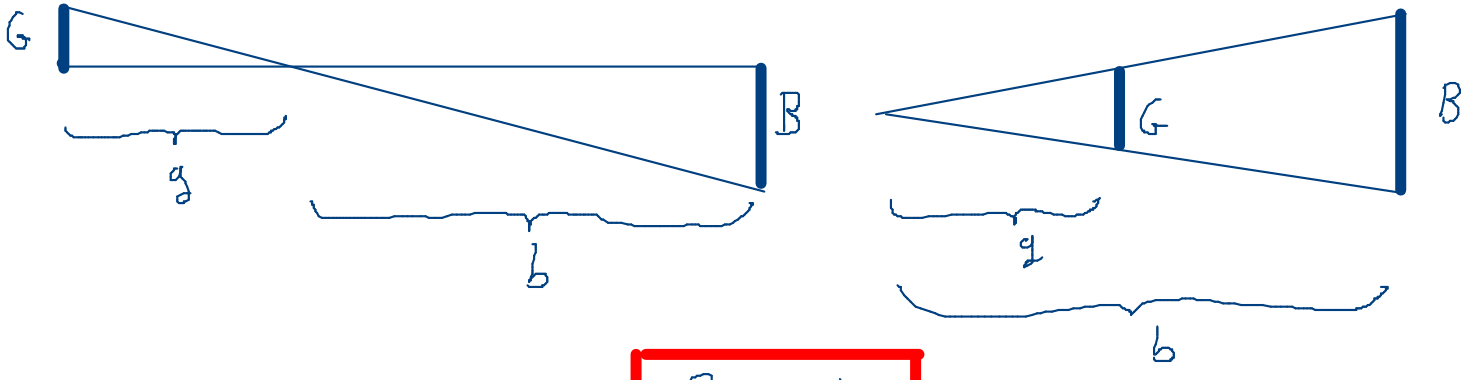
Linsengleichung



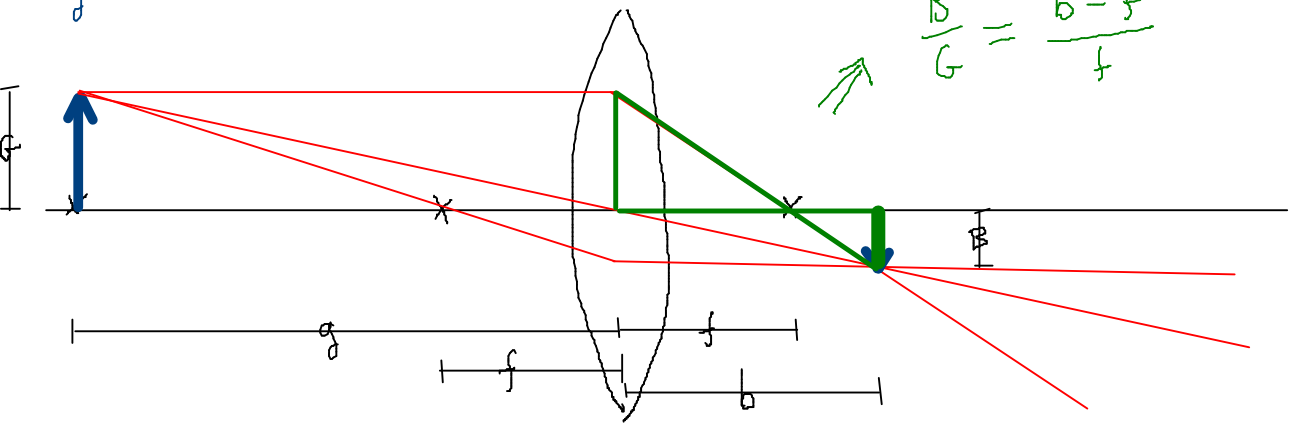




$$\frac{B}{G} = \frac{b}{g}$$

HA:
Wiederholung
Konstruktion mit g = 3 f

$g = 3 \cdot f$



$$\frac{B}{G} = \frac{b-f}{f}$$

$$\frac{B}{G} = \frac{b}{g} \quad \text{und} \quad \frac{B}{G} = \frac{b-f}{f}$$

$$\Rightarrow \quad \frac{b}{g} = \frac{b-f}{f}$$

$$\Leftrightarrow \quad \frac{b}{g} = \frac{b}{f} - \frac{f}{f}$$

$$\Leftrightarrow \quad \frac{b}{g} = \frac{b}{f} - 1 \quad | : b$$

$$\Leftrightarrow \quad \frac{1}{g} = \frac{1}{f} - \frac{1}{b} \quad | + \frac{1}{b}$$

$$\Leftrightarrow \quad \frac{1}{g} + \frac{1}{b} = \frac{1}{f} \underbrace{- \frac{1}{b} + \frac{1}{b}}_{=0} \quad | \text{ Seitenwechsel}$$

$$\Leftrightarrow \quad \boxed{\frac{1}{f} = \frac{1}{g} + \frac{1}{b}}$$

Linsengleichung