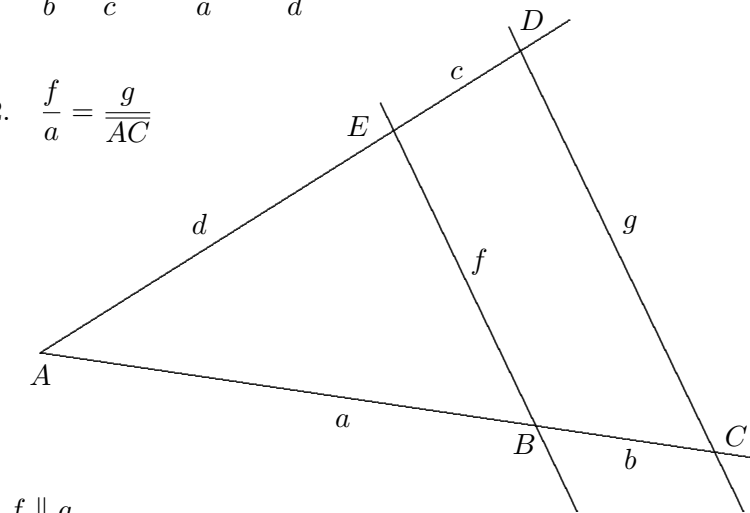


# Strahlensätze

$$1. \frac{a}{b} = \frac{d}{c} \quad \frac{\overline{AC}}{a} = \frac{\overline{AD}}{d}$$

$$2. \frac{f}{a} = \frac{g}{\overline{AC}}$$



$f \parallel g$

- |             |                                   |          |                 |
|-------------|-----------------------------------|----------|-----------------|
| 1. gegeben: | $a, b, d$                         | gesucht: | $c$             |
| 2.          | $a, b, c$                         |          | $d$             |
| 3.          | $\overline{AB}, \overline{AC}, d$ |          | $c$             |
| 4.          | $\overline{AC}, b, d$             |          | $c$             |
| 5.          | $d, c, \overline{AC}$             |          | $b$             |
| 6.          | $a, b, \overline{AD}$             |          | $d$             |
| 7.          | $a, b, g$                         |          | $f$             |
| 8.          | $\overline{AD}, c, f$             |          | $g$             |
| 9.          | $f, g, b$                         |          | $a$             |
| 10.         | $\overline{AD}, c, a$             |          | $\overline{AC}$ |
| 11.         | $c, \overline{AD}, f$             |          | $g$             |
| 12.         | $f, g, c$                         |          | $\overline{AD}$ |

13. Setze für  $x$  in den Term  $\frac{3}{x^3 - \frac{x^2}{4}}$  ein:

- a)  $-1$
- b)  $\frac{2}{3}$
- c)  $3\sqrt{2}$
- d)  $-3$
- e)  $2\sqrt{3}$

$$1. c = \frac{d \cdot b}{a}$$

$$2. d = \frac{a \cdot c}{b}$$

$$3. c = \frac{(\overline{AC} - \overline{AB}) \cdot d}{\overline{AB}}$$

$$4. c = \frac{b \cdot d}{\overline{AC} - b}$$

$$5. b = \frac{c \cdot \overline{AC}}{d + c}$$

$$6. d = \frac{a \cdot \overline{AD}}{a + b}$$

$$7. f = \frac{a \cdot g}{a + b}$$

$$8. g = \frac{f \cdot \overline{AD}}{\overline{AD} - c}$$

$$9. a = \frac{b \cdot f}{g - f}$$

$$10. \overline{AC} = \frac{\overline{AD} \cdot a}{\overline{AD} - c}$$

$$11. g = \frac{\overline{AD} \cdot f}{\overline{AD} - c}$$

$$12. \overline{AD} = \frac{c \cdot g}{g - f}$$

$$13. a) -\frac{12}{5}$$

$$b) \frac{81}{5}$$

$$c) \frac{6}{108\sqrt{2} - 9}$$

$$d) -\frac{4}{39}$$

$$e) \frac{1}{8\sqrt{3} - 1}$$