

Aufgabe 7

a)

$$\frac{3}{4} = \frac{3 \cdot 9}{4 \cdot 9} = \frac{27}{36}$$

$$\frac{7}{9} = \frac{7 \cdot 4}{9 \cdot 4} = \frac{28}{36}$$

$$\frac{27}{36} < \frac{28}{36} \quad \text{also ist} \quad \frac{3}{4} < \frac{7}{9}$$

b)

$$\frac{3}{4} > \frac{3}{5}$$

c)

$$\frac{2}{5} < \frac{3}{5}$$

d)

$$\frac{1}{4} > \frac{1}{8}$$

e)

$$\frac{3}{4} = \frac{3 \cdot 2}{4 \cdot 2} = \frac{6}{8}$$

$$\frac{6}{8} < \frac{7}{8} \quad \text{also ist} \quad \frac{3}{4} < \frac{7}{8}$$

f)

$$\frac{3}{14} = \frac{3 \cdot 6}{14 \cdot 6} = \frac{18}{84}$$

$$\frac{1}{6} = \frac{1 \cdot 14}{6 \cdot 14} = \frac{14}{84}$$

$$\frac{18}{84} > \frac{14}{84} \quad \text{also ist} \quad \frac{3}{14} > \frac{1}{6}$$

g)

$$\frac{7}{9} = \frac{7 \cdot 13}{9 \cdot 13} = \frac{91}{117}$$

$$\frac{11}{13} = \frac{11 \cdot 9}{13 \cdot 9} = \frac{99}{117}$$

$$\frac{91}{117} < \frac{99}{117} \quad \text{also ist} \quad \frac{7}{9} < \frac{11}{13}$$

h)

$$\frac{2}{5} = \frac{2 \cdot 7}{5 \cdot 7} = \frac{14}{35}$$

$$\text{Also ist} \quad \frac{2}{5} = \frac{14}{35}$$

i)

$$\frac{2}{4} = \frac{2 \cdot 2}{4 \cdot 2} = \frac{4}{8}$$

$$\frac{4}{8} < \frac{5}{8} \quad \text{also ist} \quad \frac{2}{4} < \frac{5}{8}$$

j)

$$\frac{5}{9} = \frac{5 \cdot 7}{9 \cdot 7} = \frac{35}{63}$$

$$\frac{4}{7} = \frac{4 \cdot 9}{7 \cdot 9} = \frac{36}{63}$$

$$\frac{35}{63} < \frac{36}{63} \quad \text{also ist} \quad \frac{5}{9} < \frac{4}{7}$$

k)

$$\frac{9}{5} = \frac{9 \cdot 4}{5 \cdot 4} = \frac{36}{20}$$

$$\frac{7}{4} = \frac{7 \cdot 5}{4 \cdot 5} = \frac{35}{20}$$

$$\frac{36}{20} < \frac{35}{20} \quad \text{also ist} \quad \frac{9}{5} < \frac{7}{4}$$

l)

$$\frac{5}{12} = \frac{5 \cdot 11}{12 \cdot 11} = \frac{55}{132}$$

$$\frac{7}{11} = \frac{7 \cdot 12}{11 \cdot 12} = \frac{84}{132}$$

$$\frac{55}{132} < \frac{84}{132} \quad \text{also ist} \quad \frac{5}{12} < \frac{7}{11}$$

m)

$$\frac{2}{3} = \frac{2 \cdot 20}{3 \cdot 20} = \frac{40}{60}$$

$$\frac{40}{60} > \frac{4}{60} \quad \text{also ist} \quad \frac{2}{3} < \frac{4}{60}$$

n)

$$\frac{1}{3} = \frac{1 \cdot 7}{3 \cdot 7} = \frac{7}{21}$$

$$\frac{3}{7} = \frac{3 \cdot 3}{7 \cdot 3} = \frac{9}{21}$$

$$\frac{7}{21} < \frac{9}{21} \quad \text{also ist} \quad \frac{1}{3} < \frac{3}{7}$$

o)

$$\frac{2}{5} = \frac{2 \cdot 10}{5 \cdot 10} = \frac{20}{50}$$

$$\text{Also ist} \quad \frac{2}{5} = \frac{20}{50}$$