Lösung 18.02.2021

S. 83/6

a) $1 : \frac{2}{3} = \frac{1}{1} \cdot \frac{3}{2} = \frac{3}{2}$

b) $\frac{3}{2} : 3 = \frac{3}{2} : \frac{3}{1} = \frac{3}{2} \cdot \frac{1}{3} = \frac{1}{2}$

(kürzen, nicht multiplizieren!)

c) $-1\frac{1}{4} : 5 = -\frac{5}{4} : \frac{5}{1} = -\frac{5}{4} \cdot \frac{1}{5} = -\frac{1}{4}$

kürzen!

d) $8 : \frac{4}{7} = 8 \cdot \frac{7}{4} = \frac{8 \cdot 7}{4} = 14$

e) $9 : \frac{15}{12} = 9 \cdot \frac{12}{15} = \frac{9 \cdot 12}{15} = \frac{9 \cdot 4}{5} = \frac{36}{5}$

f) $12 : 3\frac{3}{7} = 12 : \frac{24}{7} = \frac{12 \cdot 7}{24} = \frac{7}{2}$

g) $6 : 3\frac{3}{4} = 6 : \frac{15}{4} = \frac{6 \cdot 4}{15} = \frac{2 \cdot 4}{5} = \frac{8}{5}$

h) $7\frac{1}{3} : (-28) = -\frac{22}{3} \cdot \frac{1}{28} = -\frac{11}{3 \cdot 14} = -\frac{11}{42}$

S. 84 /12

a) $\frac{\frac{3}{4}}{\frac{3}{8}} = \frac{3}{4} : \frac{3}{8} = \frac{3}{4} \cdot \frac{8}{3} = \frac{1 \cdot 2}{1 \cdot 1} = 2$

kürzen!

b) $\dfrac{\frac{2}{5}}{\frac{3}{4}} = \frac{2}{5} \cdot \frac{4}{3} = \frac{8}{15}$

c) $-\dfrac{\frac{3}{8}}{\frac{5}{10}} = -\frac{3}{8} \cdot \frac{10}{5} = -\frac{3}{8} \cdot \frac{2}{1} = -\frac{3}{4}$

d) $\left(\frac{1}{7}\right)^{-2} = \dfrac{1}{\left(\frac{1}{7}\right)^2} = 1 : \frac{1}{49} = 49$

e) $\dfrac{\frac{4}{5}}{\frac{3}{5}} = \frac{4}{5} \cdot \frac{5}{3} = \frac{4}{3}$

f) $\dfrac{-\frac{3}{8}}{6} = -\frac{3}{8} \cdot \frac{1}{6} = -\frac{1}{8 \cdot 2} = -\frac{1}{16}$

g) $\dfrac{5}{\frac{2}{3}} = 5 \cdot \frac{3}{2} = \frac{15}{2}$

h) $\left(\frac{1}{3}\right)^{-4} = \dfrac{1}{\left(\frac{1}{3}\right)^4} = 1 : \left(\frac{1}{3}\right)^4 = 1 : \frac{1}{81} =$

$= 1 \cdot \frac{81}{1} = 81$