Selbsttest Bruchrechnung 7

Aufgaben

a) $\dfrac{\left(\frac{16}{-3}+\frac{-14}{3}\right)\cdot\left(\frac{13}{-14}-\frac{-8}{3}\right)}{\left(-\frac{11}{2}+\frac{1}{2}\right)\cdot\left(\frac{-13}{-8}+\frac{1}{-7}\right)}$

b) $\dfrac{\left(\frac{7}{4}+\frac{3}{-4}\right)\cdot\left(-\frac{9}{16}+\frac{-13}{-7}\right)}{\left(-\frac{-15}{-11}+\frac{-3}{4}\right)\cdot\left(\frac{1}{-8}+\frac{9}{16}\right)}$

c) $\dfrac{\left(-\frac{-14}{5}-\frac{-7}{-16}\right)\cdot\left(\frac{-5}{3}+\frac{-5}{12}\right)}{\left(-\frac{16}{-5}-\frac{14}{-15}\right)\cdot\left(-\frac{4}{13}-\frac{8}{11}\right)}$

d) $\dfrac{\left(\frac{-4}{15}-\frac{-16}{-11}\right)\cdot\left(-\frac{9}{16}+\frac{-12}{13}\right)}{\left(\frac{-9}{14}-\frac{12}{-11}\right)\cdot\left(\frac{12}{5}-\frac{4}{-7}\right)}$

e) $\dfrac{\left(-\frac{-8}{-5}-\frac{-9}{-13}\right)\cdot\left(\frac{10}{11}-\frac{3}{2}\right)}{\left(-\frac{9}{-8}-\frac{5}{7}\right)\cdot\left(\frac{-11}{3}-\frac{-1}{-2}\right)}$

f) $\dfrac{\left(-\frac{14}{-3}+\frac{7}{-10}-\frac{5}{3}+\frac{-8}{-11}\right)\cdot\left(-\frac{-13}{11}-\frac{-14}{3}-\frac{9}{16}+\frac{-1}{-7}\right)}{\left(-\frac{1}{-10}-\frac{-11}{3}-\frac{-13}{-12}-\frac{7}{3}\right)\cdot\left(\frac{8}{-15}+\frac{-9}{-14}-\frac{-6}{-5}-\frac{-1}{12}\right)}$

g) $\dfrac{\left(\frac{3}{10}-\frac{-8}{-3}-\frac{-3}{10}-\frac{-7}{-5}\right)\cdot\left(\frac{-9}{5}+\frac{-4}{5}-\frac{-10}{-3}+\frac{-14}{15}\right)}{\left(-\frac{11}{-3}-\frac{-1}{-16}-\frac{2}{11}-\frac{13}{-8}\right)\cdot\left(-\frac{7}{10}+\frac{12}{-5}+\frac{13}{-16}-\frac{13}{6}\right)}$

h) $\dfrac{\left(\frac{-15}{-14}+\frac{-1}{14}-\frac{-9}{-11}\right)\cdot\left(\frac{5}{-3}+\frac{-13}{14}+\frac{11}{10}\right)}{\left(\frac{11}{-3}-\frac{-13}{14}+\frac{-8}{15}\right)\cdot\left(-\frac{14}{5}+\frac{-2}{-7}+\frac{4}{-3}\right)}$

i) $\dfrac{\left(-\frac{-3}{10}-\frac{1}{-4}+\frac{5}{4}\right)\cdot\left(-\frac{13}{-14}+\frac{4}{11}+\frac{1}{-14}\right)}{\left(\frac{-5}{-14}+\frac{3}{14}-\frac{2}{-7}\right)\cdot\left(\frac{7}{8}-\frac{-11}{-5}-\frac{14}{-5}\right)}$

j) $\dfrac{\left(-\frac{13}{10}-\frac{-15}{-2}+\frac{3}{-2}\right)\cdot\left(\frac{-1}{16}-\frac{-13}{-5}-\frac{3}{16}\right)}{\left(-\frac{-11}{-15}-\frac{4}{15}+\frac{-2}{-3}\right)\cdot\left(-\frac{-13}{-7}+\frac{-10}{-11}-\frac{-2}{15}\right)}$

Selbsttest Bruchrechnung 7

Lösungen

a) $\dfrac{\left(\frac{16}{-3}+\frac{-14}{3}\right)\cdot\left(\frac{13}{-14}-\frac{-8}{3}\right)}{\left(-\frac{11}{2}+\frac{1}{2}\right)\cdot\left(\frac{-13}{-8}+\frac{1}{-7}\right)}$ $\quad$ L: $\quad \dfrac{584}{249}$ ¶

b) $\dfrac{\left(\frac{7}{4}+\frac{3}{-4}\right)\cdot\left(-\frac{9}{16}+\frac{-13}{-7}\right)}{\left(\frac{-15}{-11}+\frac{-3}{4}\right)\cdot\left(\frac{1}{-8}+\frac{9}{16}\right)}$ $\quad$ L: $\quad -\dfrac{6380}{4557}$ ¶

c) $\dfrac{\left(-\frac{14}{5}-\frac{-7}{-16}\right)\cdot\left(\frac{-5}{3}+\frac{-5}{12}\right)}{\left(\frac{-16}{-5}-\frac{14}{-15}\right)\cdot\left(-\frac{4}{13}-\frac{8}{11}\right)}$ $\quad$ L: $\quad \dfrac{675675}{587264}$ ¶

d) $\dfrac{\left(\frac{-4}{15}-\frac{-16}{-11}\right)\cdot\left(-\frac{9}{16}+\frac{-12}{13}\right)}{\left(\frac{-9}{14}-\frac{12}{-11}\right)\cdot\left(\frac{12}{5}-\frac{4}{-7}\right)}$ $\quad$ L: $\quad \dfrac{358337}{186576}$ ¶

e) $\dfrac{\left(-\frac{8}{5}-\frac{-9}{-13}\right)\cdot\left(\frac{10}{11}-\frac{3}{2}\right)}{\left(\frac{-9}{-8}-\frac{5}{7}\right)\cdot\left(\frac{-11}{3}-\frac{-1}{-2}\right)}$ $\quad$ L: $\quad -\dfrac{25032}{31625}$ ¶

f)

$\dfrac{\left(-\frac{14}{-3}+\frac{7}{-10}-\frac{5}{3}+\frac{-8}{-11}\right)\cdot\left(-\frac{13}{11}-\frac{-14}{3}-\frac{9}{16}+\frac{-1}{-7}\right)}{\left(-\frac{1}{-10}-\frac{-11}{3}-\frac{-13}{-12}-\frac{7}{3}\right)\cdot\left(\frac{8}{-15}+\frac{-9}{-14}-\frac{-6}{-5}-\frac{-1}{12}\right)}$ $\quad$ L: $\quad -\dfrac{3712025}{79618}$ ¶

g)

$\dfrac{\left(\frac{3}{10}-\frac{-8}{-3}-\frac{-3}{10}-\frac{-7}{-5}\right)\cdot\left(\frac{-9}{5}+\frac{-4}{5}-\frac{-10}{-3}+\frac{-14}{15}\right)}{\left(-\frac{11}{-3}-\frac{-1}{-16}-\frac{2}{11}-\frac{13}{-8}\right)\cdot\left(-\frac{7}{10}+\frac{12}{-5}+\frac{13}{-16}-\frac{13}{6}\right)}$ $\quad$ L: $\quad -\dfrac{1160192}{1495475}$ ¶

h)

$\dfrac{\left(\frac{-15}{-14}+\frac{-1}{14}-\frac{-9}{-11}\right)\cdot\left(\frac{5}{-3}+\frac{-13}{14}+\frac{11}{10}\right)}{\left(\frac{11}{-3}-\frac{-13}{14}+\frac{-8}{15}\right)\cdot\left(-\frac{14}{5}+\frac{-2}{-7}+\frac{4}{-3}\right)}$ $\quad$ L: $\quad -\dfrac{5495}{254419}$ ¶

i)

$\dfrac{\left(\frac{-3}{10}-\frac{1}{-4}+\frac{5}{4}\right)\cdot\left(\frac{-13}{-14}+\frac{4}{11}+\frac{1}{-14}\right)}{\left(\frac{-5}{-14}+\frac{3}{14}-\frac{2}{-7}\right)\cdot\left(\frac{7}{8}-\frac{-11}{-5}-\frac{14}{-5}\right)}$ $\quad$ L: $\quad \dfrac{1128}{649}$ ¶

j)

$\dfrac{\left(-\frac{13}{10}-\frac{-15}{-2}+\frac{3}{-2}\right)\cdot\left(\frac{-1}{16}-\frac{-13}{-5}-\frac{3}{16}\right)}{\left(\frac{-11}{-15}-\frac{4}{15}+\frac{-2}{-3}\right)\cdot\left(\frac{-13}{-7}+\frac{-10}{-11}-\frac{-2}{15}\right)}$ $\quad$ L: $\quad \dfrac{4068603}{37640}$ ¶