Berechnen Sie:

a) $\left(\frac{9}{3}\cdot\frac{9}{5}-\frac{3}{5}\cdot\frac{5}{3}\right):\frac{17}{5}=$

b) $\frac{11}{7}\cdot\left(\frac{16}{3}-\frac{9}{4}\right)-\frac{7}{2}:\frac{4}{5}=$

c) $\frac{34}{3}-\left(\frac{23}{5}-\frac{19}{10}\right):\left(\frac{13}{5}-\frac{5}{2}\right)=$

d) $\frac{29}{8}-\frac{27}{22}:\frac{36}{11}+\frac{16}{7}\cdot\frac{7}{24}=$

e) $\frac{14}{3}:\left(\frac{7}{2}\right)^2+\frac{66}{5}:\left(\frac{12}{2}-\frac{3}{10}\right)=$

f) $\frac{14}{3}:\left(-\frac{7}{2}\right)^2-\frac{66}{5}:\left(\frac{12}{2}+\frac{3}{10}\right)=$

g) $\left(\frac{1}{6}-\left(\frac{3}{2}\right)^3\right)\cdot\left(\frac{7}{2}+\frac{7}{3}:\frac{14}{9}\right)=$

h) $\left(\frac{1}{6}+\left(-\frac{3}{2}\right)^3\right)\cdot\left(\frac{7}{2}-\frac{7}{3}:\frac{14}{9}\right)=$

i) $\left(\frac{9}{4}\cdot\left(\frac{4}{3}\right)^3-\frac{7}{10}:\frac{11}{5}\right)\cdot\frac{26}{5}=$

j) $\left(\frac{9}{4}\cdot\left(-\frac{4}{3}\right)^3+\frac{7}{10}:\frac{11}{5}\right)\cdot\frac{26}{5}=$

k) $\left(\frac{29}{12}-\frac{4}{3}\right)^2-\left(\frac{8}{5}-\frac{23}{2}:12\right)+\frac{3}{80}=$

l) $\left(\frac{2}{3}\right)^2+\frac{5}{6}:\left(\frac{3}{4}+\frac{1}{6}\right)=$

m) $\left(2\frac{2}{3}-1\frac{1}{4}\cdot\frac{6}{5}\right):\left(2\frac{3}{7}-1\frac{1}{2}+\frac{2}{3}\right)=$

Lösungen:

a) $\left(\frac{9}{3}\cdot\frac{9}{5}-\frac{3}{5}\cdot\frac{5}{3}\right):\frac{17}{5}=\frac{22}{17}$

b) $\frac{11}{7}\cdot\left(\frac{16}{3}-\frac{9}{4}\right)-\frac{7}{2}:\frac{4}{5}=\frac{79}{168}$

c) $\frac{34}{3}-\left(\frac{23}{5}-\frac{19}{10}\right):\left(\frac{13}{5}-\frac{5}{2}\right)=-\frac{47}{3}$

d) $\frac{29}{8}-\frac{27}{22}:\frac{36}{11}+\frac{16}{7}\cdot\frac{7}{24}=\frac{47}{12}$

e) $\frac{14}{3}:\left(\frac{7}{2}\right)^2+\frac{66}{5}:\left(\frac{12}{2}-\frac{3}{10}\right)=\frac{1076}{399}$

f) $\frac{14}{3}:\left(-\frac{7}{2}\right)^2-\frac{66}{5}:\left(\frac{12}{2}+\frac{3}{10}\right)=-\frac{12}{7}$

g) $\left(\frac{1}{6}-\left(\frac{3}{2}\right)^3\right)\cdot\left(\frac{7}{2}+\frac{7}{3}:\frac{14}{9}\right)=-\frac{385}{24}$

h) $\left(\frac{1}{6}+\left(-\frac{3}{2}\right)^3\right)\cdot\left(\frac{7}{2}-\frac{7}{3}:\frac{14}{9}\right)=-\frac{77}{12}$

i) $\left(\frac{9}{4}\cdot\left(\frac{4}{3}\right)^3-\frac{7}{10}:\frac{11}{5}\right)\cdot\frac{26}{5}=\frac{4303}{165}$

j) $\left(\frac{9}{4}\cdot\left(-\frac{4}{3}\right)^3+\frac{7}{10}:\frac{11}{5}\right)\cdot\frac{26}{5}=-\frac{4303}{165}$

k) $\left(\frac{29}{12}-\frac{4}{3}\right)^2-\left(\frac{8}{5}-\frac{23}{2}:12\right)+\frac{3}{80}=\frac{41}{72}$

l) $\left(\frac{2}{3}\right)^2+\frac{5}{6}:\left(\frac{3}{4}+\frac{1}{6}\right)=\frac{134}{99}$

m) $\left(2\frac{2}{3}-1\frac{1}{4}\cdot\frac{6}{5}\right):\left(2\frac{3}{7}-1\frac{1}{2}+\frac{2}{3}\right)=\frac{49}{67}$