Klassenarbeitstraining: Brüche - Kürzen, Erweitern und Addieren

Berechne. Kürze möglicherweise zuerst.

a) $\dfrac{72}{56} + \dfrac{49}{42} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

b) $\dfrac{5}{5} + \dfrac{12}{16} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

c) $\dfrac{10}{5} + \dfrac{24}{54} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

d) $\dfrac{10}{40} + \dfrac{4}{4} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

e) $\dfrac{3}{12} + \dfrac{20}{6} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

f) $\dfrac{40}{45} + \dfrac{81}{72} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

g) $\dfrac{8}{18} + \dfrac{25}{15} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

h) $\dfrac{12}{4} + \dfrac{48}{42} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

i) $\dfrac{21}{30} + \dfrac{40}{16} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

j) $\dfrac{3}{6} + \dfrac{5}{5} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

k) $\dfrac{32}{36} + \dfrac{18}{9} + \dfrac{5}{5} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

l) $\dfrac{7}{14} + \dfrac{4}{2} + \dfrac{63}{28} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

m) $\dfrac{30}{80} + \dfrac{18}{60} + \dfrac{4}{2} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

n) $\dfrac{35}{56} + \dfrac{7}{14} + \dfrac{18}{15} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

o) $\dfrac{18}{9} + \dfrac{14}{12} + \dfrac{30}{35} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} + \rule{2em}{0.4pt} + \rule{2em}{0.4pt} = \rule{2em}{0.4pt} = \rule{2em}{0.4pt}$

Lösung:

Berechne. Kürze möglicherweise zuerst.

a) $\dfrac{72}{56} + \dfrac{49}{42} = \dfrac{9}{7} + \dfrac{7}{6} = \dfrac{54}{42} + \dfrac{49}{42} = \dfrac{103}{42}$ _____

b) $\dfrac{5}{5} + \dfrac{12}{16} = \dfrac{1}{1} + \dfrac{3}{4} = \dfrac{4}{4} + \dfrac{3}{4} = \dfrac{7}{4}$ _____

c) $\dfrac{10}{5} + \dfrac{24}{54} = \dfrac{2}{1} + \dfrac{4}{9} = \dfrac{18}{9} + \dfrac{4}{9} = \dfrac{22}{9}$ _____

d) $\dfrac{10}{40} + \dfrac{4}{4} = \dfrac{1}{4} + \dfrac{1}{1} = \dfrac{1}{4} + \dfrac{4}{4} = \dfrac{5}{4}$ _____

e) $\dfrac{3}{12} + \dfrac{20}{6} = \dfrac{1}{4} + \dfrac{10}{3} = \dfrac{3}{12} + \dfrac{40}{12} = \dfrac{43}{12}$ _____

f) $\dfrac{40}{45} + \dfrac{81}{72} = \dfrac{8}{9} + \dfrac{9}{8} = \dfrac{64}{72} + \dfrac{81}{72} = \dfrac{145}{72}$ _____

g) $\dfrac{8}{18} + \dfrac{25}{15} = \dfrac{4}{9} + \dfrac{5}{3} = \dfrac{4}{9} + \dfrac{15}{9} = \dfrac{19}{9}$ _____

h) $\dfrac{12}{4} + \dfrac{48}{42} = \dfrac{3}{1} + \dfrac{8}{7} = \dfrac{21}{7} + \dfrac{8}{7} = \dfrac{29}{7}$ _____

i) $\dfrac{21}{30} + \dfrac{40}{16} = \dfrac{7}{10} + \dfrac{5}{2} = \dfrac{7}{10} + \dfrac{25}{10} = \dfrac{32}{10} = \dfrac{16}{5}$

j) $\dfrac{3}{6} + \dfrac{5}{5} = \dfrac{1}{2} + \dfrac{1}{1} = \dfrac{1}{2} + \dfrac{2}{2} = \dfrac{3}{2}$ _____

k) $\dfrac{32}{36} + \dfrac{18}{9} + \dfrac{5}{5} = \dfrac{8}{9} + \dfrac{2}{1} + \dfrac{1}{1} = \dfrac{8}{9} + \dfrac{18}{9} + \dfrac{9}{9} = \dfrac{35}{9} = $ _____

l) $\dfrac{7}{14} + \dfrac{4}{2} + \dfrac{63}{28} = \dfrac{1}{2} + \dfrac{2}{1} + \dfrac{9}{4} = \dfrac{2}{4} + \dfrac{8}{4} + \dfrac{9}{4} = \dfrac{19}{4} = $ _____

m) $\dfrac{30}{80} + \dfrac{18}{60} + \dfrac{4}{2} = \dfrac{3}{8} + \dfrac{3}{10} + \dfrac{2}{1} = \dfrac{15}{40} + \dfrac{12}{40} + \dfrac{80}{40} = \dfrac{107}{40} = $ _____

n) $\dfrac{35}{56} + \dfrac{7}{14} + \dfrac{18}{15} = \dfrac{5}{8} + \dfrac{1}{2} + \dfrac{6}{5} = \dfrac{25}{40} + \dfrac{20}{40} + \dfrac{48}{40} = \dfrac{93}{40} = $ _____

o) $\dfrac{18}{9} + \dfrac{14}{12} + \dfrac{30}{35} = \dfrac{2}{1} + \dfrac{7}{6} + \dfrac{6}{7} = \dfrac{84}{42} + \dfrac{49}{42} + \dfrac{36}{42} = \dfrac{169}{42} = $ _____