

Addition und Subtraktion von Brüchen mit ungleichem Nenner

Lösung:

$$1) \frac{8}{5} + \frac{2}{4} = \frac{8 \cdot 4}{5 \cdot 4} + \frac{2 \cdot 5}{4 \cdot 5} = \frac{32}{20} + \frac{10}{20} = \frac{42}{20}$$

$$2) \frac{7}{2} + \frac{5}{3} = \frac{7 \cdot 3}{2 \cdot 3} + \frac{5 \cdot 2}{3 \cdot 2} = \frac{21}{6} + \frac{10}{6} = \frac{31}{6}$$

$$3) \frac{8}{7} + \frac{4}{8} = \frac{8 \cdot 8}{7 \cdot 8} + \frac{4 \cdot 7}{8 \cdot 7} = \frac{64}{56} + \frac{28}{56} = \frac{92}{56} = \frac{23}{14}$$

$$4) \frac{6}{2} + \frac{4}{5} = \frac{6 \cdot 5}{2 \cdot 5} + \frac{4 \cdot 2}{5 \cdot 2} = \frac{30}{10} + \frac{8}{10} = \frac{38}{10} = \frac{19}{5}$$

$$5) \frac{8}{6} + \frac{2}{9} = \frac{8 \cdot 3}{6 \cdot 3} + \frac{2 \cdot 3}{9 \cdot 3} = \frac{24}{18} + \frac{4}{18} = \frac{28}{18} = \frac{14}{9}$$

$$6) \frac{7}{8} + \frac{2}{5} = \frac{7 \cdot 5}{8 \cdot 5} + \frac{2 \cdot 8}{5 \cdot 8} = \frac{35}{40} + \frac{16}{40} = \frac{51}{40}$$

$$7) \frac{7}{3} + \frac{2}{5} = \frac{7 \cdot 5}{3 \cdot 5} + \frac{2 \cdot 3}{5 \cdot 3} = \frac{35}{15} + \frac{6}{15} = \frac{41}{15}$$

$$8) \frac{9}{4} + \frac{6}{2} = \frac{9 \cdot 2}{4 \cdot 2} + \frac{6 \cdot 4}{2 \cdot 4} = \frac{18}{8} + \frac{24}{8} = \frac{42}{8} = \frac{21}{4}$$

$$9) \frac{8}{9} + \frac{3}{8} = \frac{8 \cdot 8}{9 \cdot 8} + \frac{3 \cdot 9}{8 \cdot 9} = \frac{64}{72} + \frac{27}{72} = \frac{91}{72}$$

$$10) \frac{2}{5} + \frac{8}{9} = \frac{2 \cdot 9}{5 \cdot 9} + \frac{8 \cdot 5}{9 \cdot 5} = \frac{18}{45} + \frac{40}{45} = \frac{58}{45}$$

$$11) \frac{9}{4} - \frac{6}{3} = \frac{9 \cdot 3}{4 \cdot 3} - \frac{6 \cdot 4}{3 \cdot 4} = \frac{27}{12} - \frac{24}{12} = \frac{3}{12} = \frac{1}{4}$$

$$12) \frac{7}{8} - \frac{5}{8} = \frac{7}{8} - \frac{5}{8} = \frac{2}{8} = \frac{1}{4}$$

$$13) \frac{2}{4} - \frac{9}{6} = \frac{2 \cdot 3}{4 \cdot 3} - \frac{9 \cdot 2}{6 \cdot 2} = \frac{6}{12} - \frac{18}{12} = \frac{-12}{12} = -1$$

$$14) \frac{2}{3} - \frac{8}{5} = \frac{2 \cdot 5}{3 \cdot 5} - \frac{8 \cdot 3}{5 \cdot 3} = \frac{10}{15} - \frac{24}{15} = \frac{-14}{15}$$

$$15) \frac{5}{3} - \frac{2}{9} = \frac{5 \cdot 3}{3 \cdot 3} - \frac{2 \cdot 1}{9 \cdot 1} = \frac{15}{9} - \frac{2}{9} = \frac{13}{9}$$

$$16) \frac{7}{9} - \frac{2}{4} = \frac{7 \cdot 2}{9 \cdot 2} - \frac{2 \cdot 9}{4 \cdot 9} = \frac{14}{18} - \frac{18}{18} = \frac{-4}{18} = \frac{-2}{9}$$

$$17) \frac{5}{8} - \frac{2}{6} = \frac{5 \cdot 3}{8 \cdot 3} - \frac{2 \cdot 4}{6 \cdot 4} = \frac{15}{24} - \frac{8}{24} = \frac{7}{24}$$

$$1) \frac{8}{5} + \frac{2}{4} = \frac{32}{20} + \frac{10}{20} = \frac{42}{20} = \frac{21}{10}$$

$$2) \frac{7}{2} + \frac{5}{3} = \frac{21}{6} + \frac{10}{6} = \frac{31}{6}$$

$$3) \frac{8}{7} + \frac{4}{8} = \frac{64}{56} + \frac{28}{56} = \frac{92}{56} = \frac{23}{14}$$

$$4) \frac{6}{2} + \frac{4}{5} = \frac{30}{10} + \frac{8}{10} = \frac{38}{10} = \frac{19}{5}$$

$$5) \frac{8}{6} + \frac{2}{9} = \frac{24}{18} + \frac{4}{18} = \frac{28}{18} = \frac{14}{9}$$

$$6) \frac{7}{8} + \frac{2}{5} = \frac{35}{40} + \frac{16}{40} = \frac{51}{40}$$

$$7) \frac{7}{3} + \frac{2}{5} = \frac{35}{15} + \frac{6}{15} = \frac{41}{15}$$

$$8) \frac{9}{4} + \frac{6}{2} = \frac{9}{4} + \frac{12}{4} = \frac{21}{4}$$

$$9) \frac{8}{9} + \frac{3}{8} = \frac{64}{72} + \frac{27}{72} = \frac{91}{72}$$

$$10) \frac{2}{5} + \frac{8}{9} = \frac{18}{45} + \frac{40}{45} = \frac{58}{45}$$

$$11) \frac{9}{4} - \frac{6}{3} = \frac{27}{12} - \frac{24}{12} = \frac{3}{12} = \frac{1}{4}$$

$$12) \frac{7}{8} - \frac{5}{8} = \frac{7}{8} - \frac{5}{8} = \frac{2}{8} = \frac{1}{4}$$

$$13) \frac{2}{4} - \frac{9}{6} = \frac{6}{12} - \frac{18}{12} = \frac{-12}{12} = -1$$

$$14) \frac{2}{3} - \frac{8}{5} = \frac{10}{15} - \frac{24}{15} = \frac{-14}{15}$$

$$15) \frac{5}{3} - \frac{2}{9} = \frac{15}{9} - \frac{2}{9} = \frac{13}{9}$$

$$16) \frac{7}{9} - \frac{2}{4} = \frac{14}{18} - \frac{9}{18} = \frac{5}{18}$$

$$17) \frac{5}{8} - \frac{2}{6} = \frac{15}{24} - \frac{8}{24} = \frac{7}{24}$$

Brüche mit ungleichem Nenner werden addiert, indem man die Nenner gleichnamig macht und dann die Zähler addiert.