

Übungsblatt MB1 LU8

1. Verwandle folgende Brüche in gemischte Zahlen.

$$a) \frac{13}{2} = \underline{\underline{6\frac{1}{2}}}$$

$$d) \frac{7}{5} = \underline{\underline{1\frac{2}{5}}}$$

$$g) \frac{33}{10} = \underline{\underline{3\frac{3}{10}}}$$

$$b) \frac{43}{7} = \underline{\underline{6\frac{1}{7}}}$$

$$e) \frac{10}{4} = 2\frac{2}{4} = \underline{\underline{2\frac{1}{2}}}$$

$$h) \frac{11}{3} = \underline{\underline{3\frac{2}{3}}}$$

$$c) \frac{6}{5} = \underline{\underline{1\frac{1}{5}}}$$

$$f) \frac{13}{3} = \underline{\underline{4\frac{1}{3}}}$$

$$i) \frac{64}{15} = \underline{\underline{4\frac{4}{15}}}$$

2. Verwandle die gemischten Zahlen in Brüche.

$$a) 1\frac{3}{4} = \underline{\underline{\frac{7}{4}}}$$

$$d) 3\frac{7}{12} = \underline{\underline{\frac{43}{12}}}$$

$$g) 4\frac{3}{10} = \underline{\underline{\frac{43}{10}}}$$

$$b) 5\frac{1}{3} = \underline{\underline{\frac{16}{3}}}$$

$$e) 2\frac{3}{4} = \underline{\underline{\frac{11}{4}}}$$

$$h) 1\frac{1}{3} = \underline{\underline{\frac{4}{3}}}$$

$$c) 15\frac{2}{5} = \underline{\underline{\frac{77}{5}}}$$

$$f) 8\frac{3}{8} = \underline{\underline{\frac{67}{8}}}$$

$$i) 4\frac{4}{15} = \underline{\underline{\frac{64}{15}}}$$

3. Berechne x.

$$a) \frac{1}{2} = \frac{x}{72} \quad x = \underline{\underline{36}}$$

$$c) \frac{13}{3} = \frac{x}{72} \quad x = \underline{\underline{312}}$$

$$e) \frac{x}{4} = \frac{12}{16} \quad x = \underline{\underline{3}}$$

$$b) \frac{2}{16} = \frac{10}{x} \quad x = \underline{\underline{80}}$$

$$d) \frac{3}{4} = \frac{x}{12} \quad x = \underline{\underline{9}}$$

$$f) \frac{5}{8} = \frac{x}{56} \quad x = \underline{\underline{35}}$$

4. Erweitere oder kürze den gegebenen Bruch so, dass der neue Nenner eine möglichst kleine Zehnerpotenz ist. Verwandle dann in einen Dezimalbruch.

$$a) \frac{4}{5} = \frac{8}{10} = \underline{\underline{0,8}}$$

$$d) \frac{2}{84} = \frac{1}{42} = \frac{25}{100} = \underline{\underline{0,25}}$$

$$g) \frac{21}{30} = \frac{7}{10} = \underline{\underline{0,7}}$$

$$b) \frac{4}{20} = \frac{2}{10} = \underline{\underline{0,2}}$$

$$e) \frac{1}{4} = \frac{25}{100} = \underline{\underline{0,25}}$$

$$h) \frac{3}{8} = \frac{375}{1000} = \underline{\underline{0,375}}$$

$$c) \frac{36}{40} = \frac{15}{10} = \underline{\underline{0,15}}$$

$$f) \frac{12}{15} = \frac{8}{10} = \underline{\underline{0,8}}$$

$$i) \frac{30}{48} = \frac{625}{1000} = \underline{\underline{0,625}}$$

5. Kürze so weit wie möglich.

$$a) \frac{4}{16} = \underline{\underline{\frac{1}{4}}}$$

$$d) \frac{14}{56} = \underline{\underline{\frac{1}{4}}}$$

$$g) \frac{75}{30} = \underline{\underline{\frac{5}{2}}}$$

$$b) \frac{18}{63} = \underline{\underline{\frac{2}{7}}}$$

$$e) \frac{51}{119} = \underline{\underline{\frac{3}{7}}}$$

$$h) \frac{12}{84} = \underline{\underline{\frac{1}{7}}}$$

$$c) \frac{32}{40} = \underline{\underline{\frac{4}{5}}}$$

$$f) \frac{96}{64} = \underline{\underline{\frac{3}{2}}}$$

$$i) \frac{64}{72} = \underline{\underline{\frac{8}{9}}}$$

6. Bestimme x.

$$a) \frac{5}{12} = \frac{x}{36} \quad x = \underline{\underline{15}}$$

$$d) \frac{x}{5} = \frac{24}{60} \quad x = \underline{\underline{2}}$$

$$g) \frac{3}{x} = \frac{18}{84} \quad x = \underline{\underline{14}}$$

$$b) \frac{11}{28} = \frac{x}{252} \quad x = \underline{\underline{99}}$$

$$e) \frac{128}{76} = \frac{32}{x} \quad x = \underline{\underline{19}}$$

$$h) \frac{34}{86} = \frac{17}{x} \quad x = \underline{\underline{43}}$$

$$c) \frac{x}{95} = \frac{5}{19} \quad x = \underline{\underline{25}}$$

$$f) \frac{x}{13} = \frac{132}{156} \quad x = \underline{\underline{11}}$$

$$i) \frac{3}{x} = \frac{297}{693} \quad x = \underline{\underline{7}}$$