

1.2. Rozšiřování a krácení zlomků - procvičování

1. Doplň na chybějící místo takové číslo, aby platila rovnost:

$$\frac{\square}{11} = \frac{12}{44} \quad \frac{4}{5} = \frac{12}{\square} \quad \frac{6}{12} = \frac{24}{\square} \quad \frac{4}{6} = \frac{8}{\square}$$

$$\frac{1}{5} = \frac{\square}{25} \quad \frac{3}{\square} = \frac{6}{24} \quad \frac{8}{\square} = \frac{16}{20} \quad \frac{2}{\square} = \frac{10}{15}$$

$$\frac{2}{3} = \frac{8}{\square} \quad \frac{1}{\square} = \frac{2}{4} \quad \frac{\square}{3} = \frac{5}{15} \quad \frac{4}{5} = \frac{\square}{15}$$

$$\frac{\square}{4} = \frac{8}{16} \quad \frac{7}{9} = \frac{14}{\square} \quad \frac{1}{2} = \frac{3}{\square} \quad \frac{4}{8} = \frac{\square}{32}$$

$$\frac{3}{\square} = \frac{9}{33} \quad \frac{\square}{4} = \frac{4}{8} \quad \frac{5}{6} = \frac{25}{\square} \quad \frac{5}{10} = \frac{\square}{40}$$

$$\frac{\square}{11} = \frac{12}{22} \quad \frac{4}{6} = \frac{\square}{12} \quad \frac{3}{10} = \frac{\square}{20} \quad \frac{2}{\square} = \frac{6}{33}$$

$$\frac{\square}{2} = \frac{2}{4} \quad \frac{\square}{9} = \frac{12}{27} \quad \frac{4}{9} = \frac{20}{\square} \quad \frac{9}{10} = \frac{\square}{50}$$

$$\frac{\square}{9} = \frac{40}{45} \quad \frac{7}{9} = \frac{21}{\square} \quad \frac{\square}{10} = \frac{12}{20} \quad \frac{\square}{5} = \frac{2}{10}$$

$$\frac{4}{\square} = \frac{20}{45} \quad \frac{3}{7} = \frac{\square}{28} \quad \frac{\square}{6} = \frac{4}{12} \quad \frac{5}{9} = \frac{\square}{36}$$

$$\frac{10}{12} = \frac{\square}{36} \quad \frac{4}{7} = \frac{12}{\square} \quad \frac{1}{2} = \frac{\square}{8} \quad \frac{7}{\square} = \frac{28}{32}$$

$$\frac{8}{\square} = \frac{24}{30}$$

$$\frac{\square}{6} = \frac{20}{24}$$

$$\frac{\square}{11} = \frac{10}{22}$$

$$\frac{\square}{8} = \frac{15}{24}$$

$$\frac{2}{\square} = \frac{8}{32}$$

$$\frac{5}{9} = \frac{25}{\square}$$

$$\frac{2}{9} = \frac{\square}{45}$$

$$\frac{8}{11} = \frac{\square}{55}$$

$$\frac{4}{8} = \frac{\square}{24}$$

$$\frac{1}{\square} = \frac{5}{30}$$

$$\frac{\square}{3} = \frac{6}{9}$$

$$\frac{4}{12} = \frac{8}{\square}$$

$$\frac{\square}{11} = \frac{32}{44}$$

$$\frac{2}{\square} = \frac{8}{16}$$

$$\frac{1}{\square} = \frac{5}{10}$$

$$\frac{5}{9} = \frac{\square}{18}$$

2. Uprav zlomky na základní tvar:

$$\frac{2}{4} = \quad \frac{35}{40} = \quad \frac{10}{16} = \quad \frac{8}{36} = \quad \frac{45}{40} =$$

$$\frac{18}{20} = \quad \frac{4}{36} = \quad \frac{6}{9} = \quad \frac{2}{10} = \quad \frac{145}{50} =$$

$$\frac{3}{30} = \quad \frac{44}{48} = \quad \frac{5}{15} = \quad \frac{10}{35} = \quad \frac{58}{16} =$$

$$\frac{10}{45} = \quad \frac{6}{14} = \quad \frac{28}{32} = \quad \frac{20}{24} = \quad \frac{26}{24} =$$

$$\frac{5}{15} = \quad \frac{4}{32} = \quad \frac{30}{35} = \quad \frac{3}{6} = \quad \frac{112}{36} =$$

$$\frac{14}{24} = \quad \frac{18}{20} = \quad \frac{14}{18} = \quad \frac{5}{35} = \quad \frac{58}{24} =$$

3. Vyjádři zlomkem část celku (a zkrat' na základní tvar):

$$50 \text{ cm} = \dots \text{ m}$$

$$75 \text{ cm} = \dots \text{ m}$$

$$90 \text{ mm} = \dots \text{ m}$$

$$4 \text{ dm} = \dots \text{ m}$$

$$120 \text{ mm} = \dots \text{ m}$$

$$50 \text{ mm} = \dots \text{ dm}$$

$$5 \text{ min} = \dots \text{ hodin}$$

$$40 \text{ min} = \dots \text{ h}$$

$$6 \text{ min} = \dots \text{ h}$$

$$15 \text{ min} = \dots \text{ h}$$

$$3 \text{ min} = \dots \text{ h}$$

$$150 \text{ s} = \dots \text{ min}$$

$$50 \text{ g} = \dots \text{ kg}$$

$$600 \text{ g} = \dots \text{ kg}$$

$$500 \text{ kg} = \dots \text{ tun}$$

$$13 \text{ kg} = \dots \text{ t}$$

$$80 \text{ g} = \dots \text{ kg}$$

$$64 \text{ mg} = \dots \text{ g}$$

4. Uprav zlomky na základní tvar:

$$\frac{90}{35} =$$

$$\frac{148}{40} =$$

$$\frac{9}{6} =$$

$$\frac{15}{50} =$$

$$\frac{14}{24} =$$

$$\frac{69}{21} =$$

$$\frac{55}{30} =$$

$$\frac{12}{8} =$$

$$\frac{35}{10} =$$

$$\frac{33}{24} =$$

$$\frac{4}{24} =$$

$$\frac{57}{21} =$$

$$\frac{22}{14} =$$

$$\frac{135}{40} =$$

$$\frac{128}{36} =$$

$$\frac{4}{36} =$$

$$\frac{141}{36} =$$

$$\frac{33}{15} =$$

5. Dopln místo písmene x takové číslo, aby platila rovnost:

a) $\frac{1}{2} = \frac{x}{6}$

$\frac{2}{3} = \frac{x}{9}$

$\frac{4}{7} = \frac{x}{14}$

$\frac{3}{4} = \frac{x}{16}$

$\frac{2}{9} = \frac{x}{18}$

b) $\frac{5}{6} = \frac{15}{x}$

$\frac{1}{7} = \frac{7}{x}$

$\frac{13}{5} = \frac{52}{x}$

$\frac{5}{9} = \frac{25}{x}$

$\frac{3}{7} = \frac{12}{x}$

c) $\frac{6}{21} = \frac{x}{7}$

$\frac{8}{40} = \frac{x}{5}$

$\frac{9}{12} = \frac{x}{48}$

$\frac{12}{32} = \frac{x}{16}$

$\frac{33}{30} = \frac{x}{10}$

d) $\frac{7}{6} = \frac{x}{42}$

$\frac{5}{9} = \frac{45}{x}$

$\frac{2}{3} = \frac{14}{x}$

$\frac{13}{5} = \frac{39}{x}$

$\frac{3}{4} = \frac{x}{20}$

e) $\frac{9}{12} = \frac{x}{8}$

$\frac{12}{32} = \frac{x}{24}$

$\frac{6}{42} = \frac{x}{28}$

$\frac{15}{18} = \frac{x}{24}$

$\frac{8}{36} = \frac{x}{27}$

6. Uprav zlomky na základní tvar:

a) $\frac{7}{14} = \text{---}$

$\frac{10}{15} = \text{---}$

$\frac{6}{27} = \text{---}$

$\frac{6}{8} = \text{---}$

$\frac{15}{40} = \text{---}$

b) $\frac{24}{15} = \text{---}$

$\frac{44}{40} = \text{---}$

$\frac{27}{21} = \text{---}$

$\frac{12}{16} = \text{---}$

$\frac{32}{28} = \text{---}$

c) $\frac{25}{45} = \text{---}$

$\frac{18}{48} = \text{---}$

$\frac{14}{35} = \text{---}$

$\frac{27}{36} = \text{---}$

$\frac{9}{54} = \text{---}$

d) $\frac{52}{20} = \text{---}$

$\frac{66}{60} = \text{---}$

$\frac{63}{14} = \text{---}$

$\frac{60}{35} = \text{---}$

$\frac{64}{40} = \text{---}$

e) $\frac{36}{48} = \text{---}$

$\frac{75}{90} = \text{---}$

$\frac{54}{144} = \text{---}$

$\frac{28}{42} = \text{---}$

$\frac{48}{84} = \text{---}$