

Dobrý den,
dnes se budeme opět věnovat početním operacím se zlomky.

Cvičení č. 1

$$24 \cdot \left(\frac{5}{8} - \frac{2}{3}\right) =$$

$$\left(\frac{1}{6} - \frac{5}{7}\right) \cdot \left(-\frac{7}{23}\right) =$$

$$\left(\frac{5}{9} - \frac{1}{3}\right) \cdot \frac{3}{4} =$$

$$\left(\frac{4}{9} + \frac{2}{3}\right) \cdot \left(\frac{5}{6} - \frac{1}{2}\right) =$$

Cvičení č. 2

$$\frac{4}{11} : \frac{16}{33} =$$

$$\frac{2}{3} : \left(\frac{1}{9} \cdot \frac{6}{4}\right) =$$

$$\frac{2}{3} : \frac{4}{9} - \frac{3}{8} =$$

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

$$1\frac{2}{3} : \frac{5}{9} =$$

ŘEŠENÍ:

$$24 \cdot \left(\frac{5}{8} - \frac{2}{3}\right) = \frac{24}{1} \cdot \left(\frac{15-16}{24}\right) = \frac{24}{1} \cdot \frac{(-1)}{24} = \frac{1 \cdot (-1)}{1 \cdot 1} = \frac{-1}{1} = -1$$

$$\left(\frac{1}{6} - \frac{5}{7}\right) \cdot \left(-\frac{7}{23}\right) = \left(\frac{7-30}{42}\right) \cdot \frac{(-7)}{23} = \frac{-23}{42} \cdot \frac{(-7)}{23} = \frac{(-1) \cdot (-1)}{6 \cdot 1} = \frac{1}{6}$$

$$\left(\frac{5}{9} - \frac{1}{3}\right) \cdot \frac{3}{4} = \left(\frac{5-3}{9}\right) \cdot \frac{3}{4} = \frac{2}{9} \cdot \frac{3}{4} = \frac{1 \cdot 1}{3 \cdot 2} = \frac{1}{6}$$

$$\left(\frac{4}{9} + \frac{2}{3}\right) \cdot \left(\frac{5}{6} - \frac{1}{2}\right) = \left(\frac{4+6}{9}\right) \cdot \left(\frac{5-3}{6}\right) = \frac{10}{9} \cdot \frac{2}{6} = \frac{5 \cdot 2}{9 \cdot 3} = \frac{10}{27}$$

Cvičení č. 2

$$\frac{4}{11} : \frac{16}{33} = \frac{4}{11} \cdot \frac{33}{16} = \frac{1 \cdot 3}{1 \cdot 4} = \frac{3}{4}$$

$$\frac{2}{3} : \left(\frac{1}{9} \cdot \frac{6}{4}\right) = \frac{2}{3} : \left(\frac{1 \cdot 2}{3 \cdot 4}\right) = \frac{2}{3} : \left(\frac{1 \cdot 1}{3 \cdot 2}\right) = \frac{2}{3} : \frac{1}{6} = \frac{2}{3} \cdot \frac{6}{1} = \frac{2 \cdot 2}{1 \cdot 1} = \frac{4}{1} = 4$$

$$\frac{2}{3} : \frac{4}{9} - \frac{3}{8} = \frac{2}{3} \cdot \frac{9}{4} - \frac{3}{8} = \frac{1 \cdot 3}{1 \cdot 2} - \frac{3}{8} = \frac{3}{2} - \frac{3}{8} = \frac{12-3}{8} = \frac{9}{8} = 1\frac{1}{8}$$

$$\left(\frac{2}{5} + \frac{1}{2}\right) : \left(\frac{4}{5} - \frac{3}{4}\right) = \left(\frac{4+5}{10}\right) : \left(\frac{16-15}{20}\right) = \frac{9}{10} : \frac{1}{20} = \frac{9}{10} \cdot \frac{20}{1} = \frac{9 \cdot 2}{1 \cdot 1} = \frac{18}{1} = 18$$

$$1\frac{2}{3} : \frac{5}{9} = \frac{5}{3} : \frac{5}{9} = \frac{5}{3} \cdot \frac{9}{5} = \frac{1 \cdot 3}{1 \cdot 1} = \frac{3}{1} = 3$$