Ур. 1.

№1

$\frac{1}{2} + \frac{1}{3} = \frac{3}{6} + \frac{2}{6} = \frac{5}{6}$

№2

$\frac{3}{2} + \frac{1}{2} = \frac{4}{2} = 2$

№5

$\frac{3}{8} - \frac{1}{4} = \frac{3}{8} - \frac{2}{8} = \frac{1}{8}$

№12

$\frac{5}{3} \cdot \frac{15}{10} = \frac{5 \cdot 5 \cdot 3}{3 \cdot 5 \cdot 2} = \frac{5}{2}$

№15

$\frac{1}{2} : \frac{1}{2} = 1$

Ур. 2

№4

$\frac{5^{-2} - 1}{18} \cdot \frac{10}{4} = \frac{25 - 1}{18} \cdot \frac{10}{4} = \frac{24^{6}}{18_{9}} \cdot \frac{10^{5}}{4} =$

$\frac{6 \cdot 5}{9} = \frac{3 \cdot 2 \cdot 5}{3 \cdot 3} = \frac{10}{3}$

№9

$$\frac{3}{8}\cdot\frac{24}{5}\cdot\frac{10}{27}=\frac{1\cdot 24\cdot 10}{8\cdot 5\cdot 9}=\frac{1\cdot 6\cdot 2}{2\cdot 1\cdot 9}=\frac{6}{9}=\frac{2}{3}$$

№10

$$\frac{3}{5}\cdot\frac{5}{8}\cdot\frac{2}{9}-\frac{2}{4}\cdot\frac{4}{8}\cdot\frac{6}{8}=$$

$$=\frac{1}{3}-\frac{1}{4}=\frac{4}{12}-\frac{3}{12}=\frac{1}{12}$$

Упр 3

1.

$$\frac{1}{2}\cdot\frac{2}{3}\cdot\frac{3}{4}\cdot\frac{4}{5}\cdot\frac{5}{6}\cdot\ldots\cdot\frac{2011}{2012}$$

$$\frac{1}{2012}$$