

# PRÁCO S RACIONÁLNÍMI ČÍSLY

$$(1) \quad 1.1 \quad \left(2 \cdot \frac{1}{3} - \frac{1}{6}\right)^2 = \left(\frac{2}{3} - \frac{1}{6}\right)^2 = \left(\frac{4}{6} - \frac{1}{6}\right)^2 = \left(\frac{3}{6}\right)^2 = \left(\frac{1}{2}\right)^2 = \frac{1}{4}$$

$$1.2 \quad \left(\frac{1}{2}\right)^2 - \left(\frac{1}{4}\right)^2 = \frac{1}{4} - \frac{1}{16} = \frac{4}{16} - \frac{1}{16} = \frac{3}{16}$$

$$(2) \quad (-1)^2 - (-1) \cdot (-1)^2 - 1^2 \cdot (-1) =$$

$$2.1 \quad 1 - (-1) \cdot 1 - 1 \cdot (-1) = 1 + 1 + 1 = 3$$

$$2.2 \quad \frac{-1^2 \cdot (-2) + 2^2}{-2^2} = \frac{-1 \cdot (-2) + 4}{-4} = \frac{+2 + 4}{-4} = \frac{6}{-4} = -\frac{3}{2}$$

$$(3) \quad 3.1 \quad \sqrt{\frac{25}{16}} - \left(\frac{1}{2}\right)^2 = \frac{5}{4} - \frac{1}{4} = \frac{4}{4} = 1$$

$$3.2 \quad \sqrt{5^2 - 3^2} = \sqrt{25 - 9} = \sqrt{16} = 4$$

$$(4) \quad 4.1 \quad \sqrt{100} - \sqrt{36} = \sqrt{100} - 6 = \sqrt{100 - 6} = \sqrt{94} \neq \sqrt{4} = 2$$

$$4.2 \quad \left(\sqrt{100} - (\sqrt{64} - \sqrt{36})\right)^2 = \left(10 - (8 - 6)\right)^2 = \frac{64}{8}$$

$$(5) \quad \frac{4^2}{\sqrt{4}} = \frac{16}{2} = 8$$

$$(6) \quad -2 = 2^2 \quad -4 \neq 4 \quad \text{NO}$$

$$\left(\frac{1}{2}\right)^2 = \frac{1}{4} \quad 0,25 = \frac{25}{100} = \frac{1}{4} \quad \text{ANO}$$

$$0,2^2 = 0,04 \neq 0,4 \quad \text{NO}$$

$$\left(-\frac{1}{2}\right)^2 = \frac{1}{4} \quad \sqrt{\frac{2}{32}} \Rightarrow \sqrt{\frac{1}{16}} = \sqrt{\frac{1}{4}} = \frac{1}{2} \quad \text{ANO}$$