

## Kvadrati razlomaka

– rješenja –

1) Izračunaj: a)  $\left(\frac{7}{8}\right)^2 = \frac{7}{8} \cdot \frac{7}{8}$   
 $= \frac{49}{64}$

b)  $\frac{2}{4^2} = \frac{2}{16}$   
 $= \frac{1}{8}$

c)  $\left(3\frac{1}{3}\right)^2 = \left(\frac{10}{3}\right)^2$   
 $= \frac{10}{3} \cdot \frac{10}{3}$   
 $= \frac{100}{9}$   
 $= 11\frac{1}{9}$

2) Izračunaj: a)  $\left(\frac{1}{2}\right)^2 + \left(\frac{3}{4}\right)^2 = \frac{1}{4} + \frac{9}{16}$   
 $= \frac{4 + 9}{16}$   
 $= \frac{13}{16}$

b)  $3^2 - \left(\frac{2}{5}\right)^2 = \frac{9}{1} - \frac{4}{25}$   
 $= \frac{225 - 4}{25}$   
 $= \frac{221}{25}$   
 $= 8\frac{21}{25}$

ili

$3^2 - \left(\frac{2}{5}\right)^2 = \frac{9}{1} - \frac{4}{25}$   
 $= 9 - \frac{4}{25}$   
 $= 8\frac{25}{25} - \frac{4}{25}$   
 $= 8\frac{21}{25}$

c)  $\frac{3}{2^2} + \left(\frac{5}{4}\right)^2 - \frac{3}{8} = \frac{3}{4} + \frac{25}{16} - \frac{3}{8}$   
 $= \frac{12 + 25 - 6}{16}$   
 $= \frac{31}{16}$   
 $= 1\frac{15}{16}$

3) Ako je  $x = \frac{3}{5}$  odredi:

a)  $1 - x^2 = 1 - \left(\frac{3}{5}\right)^2$   
 $= 1 - \frac{9}{25}$   
 $= \frac{25}{25} - \frac{9}{25}$   
 $= \frac{16}{25}$

b)  $x^2 + 3x = \left(\frac{3}{5}\right)^2 + 3 \cdot \frac{3}{5}$   
 $= \frac{9}{25} + \frac{9}{5}$   
 $= \frac{9 + 45}{25}$   
 $= \frac{54}{25}$   
 $= 2\frac{4}{25}$

c)  $2x - 2x^2 = 2 \cdot \frac{3}{5} - 2 \cdot \left(\frac{3}{5}\right)^2$   
 $= \frac{9}{5} - 2 \cdot \frac{9}{25}$   
 $= \frac{9}{5} - \frac{18}{25}$   
 $= \frac{45 - 18}{25}$   
 $= \frac{27}{25}$   
 $= 1\frac{2}{25}$

4) Izračunaj:

$$\begin{aligned}\text{a) } \left(2 + \frac{1}{2}\right)^2 - \frac{3^2}{4} &= \left(2\frac{1}{2}\right)^2 - \frac{9}{4} \\ &= \left(\frac{5}{2}\right)^2 - \frac{9}{4} \\ &= \frac{25}{4} - \frac{9}{4} \\ &= \frac{16}{4} \\ &= 4\end{aligned}$$

$$\begin{aligned}\text{b) } \left(\frac{2}{3}\right)^2 \cdot 3 - 4 \cdot \left(\frac{1}{2}\right)^2 + \left(1 + \frac{1}{3}\right)^2 &= \frac{4}{9} \cdot 3^1 - 4^1 \cdot \frac{1}{4} + \left(1\frac{1}{3}\right)^2 \\ &= \frac{4}{3} - 1 + \left(\frac{4}{3}\right)^2 \\ &= \frac{4}{3} - 1 + \frac{16}{9} \\ &= \frac{12 - 9 + 16}{9} \\ &= \frac{19}{9} \\ &= 2\frac{1}{9}\end{aligned}$$