

Preverjanje znanja - številski izrazi

Rešitve

1. a) $\frac{3}{5} + \frac{2}{5} \square \frac{3^1}{4^1} + \frac{4^1}{3^1}$
 $\downarrow \qquad \qquad \downarrow$
 $\frac{5}{5} = 1 \quad \square \quad \frac{1}{1} = 1$

b) $1 + 2 \cdot \frac{1}{2} \square 2 \cdot \frac{1}{2} - \frac{1}{2}$
 $\downarrow \qquad \qquad \downarrow$
 $1 + 1 = 2 \qquad 1 - \frac{1}{2} = \frac{1}{2}$
 $2 \quad \square \quad \frac{1}{2}$

c) $(\frac{3}{8} + \frac{2}{8}) \cdot 8 \square 6\frac{1}{2} - 1$
 $\downarrow \qquad \qquad \downarrow$
 $\frac{5}{8} \cdot 8 = 5 \quad \square \quad 5\frac{1}{2}$

2. • $\frac{7}{9} + \frac{5}{6} \neq \frac{12}{15}$
(N)

Popravek: $\frac{7}{9} + \frac{5}{6} = \frac{28}{36} + \frac{30}{36} = \frac{58}{36} =$
 $= 1\frac{22}{36} = \underline{\underline{1\frac{11}{18}}}$

• $6 - 3\frac{3}{4} \neq 3\frac{3}{4}$ Popravek:
(N)

$6 - 3\frac{3}{4} = 5\frac{4}{4} - 3\frac{3}{4} = \underline{\underline{2\frac{1}{4}}}$

• $3\frac{2}{3} \text{ m} > 365 \text{ cm}$
P

Razlaga:

$365 \text{ cm} = 3,65 \text{ m} = 3\frac{65}{100} \text{ m} =$
 $= 3\frac{13}{20} \text{ m} = \underline{\underline{3\frac{39}{60} \text{ m}}}$

$3\frac{2}{3} \text{ m} = \underline{\underline{3\frac{40}{60} \text{ m}}}$

N
 • Desetiški ulanki: $\frac{1}{2}, \frac{3}{10}, \frac{2}{5} \dots$

Ulanek, ki ima vrednost 0 ($\frac{0}{5} = \frac{0}{7} = \dots$), nimai obratne vrednosti. Vsi ostali ulanki imajo obratno vrednost.

$$3.a) \frac{54^6}{49^7} \cdot \frac{21^3}{45^5} = \frac{6 \cdot 3}{7 \cdot 5} = \frac{18}{35}$$

$$c) \frac{7}{8} - \frac{3}{4} + \frac{4}{5} =$$

$$= \frac{35}{40} - \frac{30}{40} + \frac{32}{40} =$$

$$= \frac{37}{40}$$

$$e) 4\frac{1}{6} : 2,5 + 3\frac{3}{4} \cdot 1,2 =$$

$$= \frac{25}{6} : \frac{25}{10} + \frac{15^3}{4^1} \cdot \frac{12^3}{10^2} =$$

$$= \frac{25^1}{6^3} \cdot \frac{10^5}{25^1} + \frac{3}{1} \cdot \frac{3}{2} =$$

$$= \frac{5}{3} + \frac{9}{2} =$$

$$= \frac{10}{6} + \frac{27}{6} =$$

$$= \frac{37}{6} = 6\frac{1}{6}$$

$$g) (4\frac{2}{5} - 2\frac{3}{4}) : 1\frac{1}{10} =$$

$$= (4\frac{16}{40} - 2\frac{30}{40}) : 1\frac{1}{10} =$$

$$= (3\frac{56}{40} - 2\frac{30}{40}) : \frac{11}{10} =$$

$$= 1\frac{26}{40} \cdot \frac{10}{11} =$$

$$= \frac{26^6}{40^4} \cdot \frac{10^1}{11^1} =$$

$$= \frac{6}{4} = \frac{3}{2} = 1\frac{1}{2}$$

$$b) 9\frac{4}{5} : 3\frac{1}{2} =$$

$$= \frac{49}{5} : \frac{7}{2} =$$

$$= \frac{49^7}{5^1} \cdot \frac{2}{7^1} =$$

$$= \frac{14}{5} = 2\frac{4}{5}$$

$$d) \frac{2\frac{1}{4}}{\frac{15}{16}} = 2\frac{1}{4} : \frac{15}{16} = \frac{46^3}{4^1} \cdot \frac{16^4}{15^5} = \frac{12}{5}$$

$$= 2\frac{2}{5}$$

$$f) 5 - 3\frac{1}{2} \cdot \frac{4}{5} + 1\frac{1}{2} : 2 =$$

$$= 5 - \frac{7}{2} \cdot \frac{4^2}{5} + \frac{3}{2} : \frac{2}{1} =$$

$$= 5 - \frac{14}{5} + \frac{3}{2} \cdot \frac{1}{2} =$$

$$= 5 - 2\frac{4}{5} + \frac{3}{4} =$$

$$= 2\frac{1}{5} + \frac{3}{4} = 2\frac{4}{20} + \frac{15}{20} = 2\frac{19}{20}$$

$$h) 8\frac{1}{4} - 3\frac{2}{5} \cdot 2 + 5 : 0,1 - 0,01 =$$

$$= 8\frac{1}{4} - \frac{12}{5} \cdot 2 + 5 : \frac{1}{10} - \frac{1}{100} =$$

$$= 8\frac{1}{4} - \frac{34}{5} + 5 \cdot \frac{10}{1} - \frac{1}{100} =$$

$$= 8\frac{5}{20} - 6\frac{16}{20} + 50 - \frac{1}{100} =$$

$$= 7\frac{25}{20} - 6\frac{16}{20} + 50 - \frac{1}{100} =$$

$$= 51\frac{9}{20} - \frac{1}{100} =$$

$$= 51\frac{45}{100} - \frac{1}{100} = 51\frac{44}{100} = 51\frac{22}{50}$$

4. a) $\frac{28}{10} \cdot 2,8 \stackrel{?}{=} 1$
 $\frac{28}{10} \cdot \frac{28}{10} \neq 1$

b) $\frac{10}{28} \cdot 2,8 \stackrel{?}{=} 1$
 $\frac{10}{28} \cdot \frac{28}{10} = 1$ ✓ DA

c) $\frac{82}{10} \cdot 2,8 \stackrel{?}{=} 1$
 $\frac{82}{10} \cdot \frac{28}{10} \neq 1$

c) $\frac{28}{10} \cdot 2,8 \neq 1$

d) $\frac{14}{5} \cdot 2,8 \stackrel{?}{=} 1$
 $\frac{14}{5} \cdot \frac{28}{10} \neq 1$

e) $\frac{5}{14} \cdot 2,8 \stackrel{?}{=} 1$
 $\frac{5}{14} \cdot \frac{28}{10} \stackrel{?}{=} 1$

$\frac{2}{2} = 1$ ✓ DA

5. $5 \cdot 2 \frac{4}{15} \cdot 4 \frac{2}{7} : \frac{1}{7} =$

$5 \cdot 2 \frac{4}{15} - \frac{1}{7} : 4 \frac{2}{7}$ — PRAVILNO

6. ROK

dolžina $3 \frac{9}{10} \text{ m}$

širina $\frac{5}{9}$ od dolžine

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

$= \frac{5}{9} \cdot \frac{39}{10} =$

$= \frac{39}{18} = 2 \frac{3}{18} =$

$= 2 \frac{1}{6} \text{ m}$ je dolžina

ŠPELA

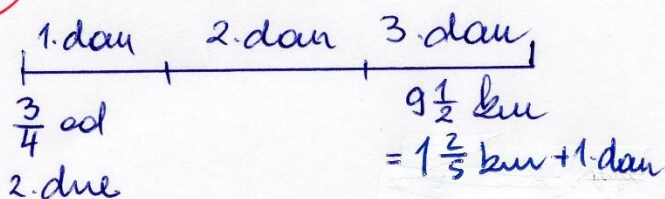
$\frac{1}{2}$ od $3 \frac{9}{10} = \frac{1}{2} \cdot \frac{39}{10} = \frac{39}{20} = 1 \frac{19}{20} \text{ m}$

$2 \cdot 2 \frac{1}{6} = 2 \cdot \frac{13}{6} = \frac{13}{3} = 4 \frac{1}{3} \text{ m}$

Izrač: $2 \cdot \left(\frac{5}{9} \cdot 3 \frac{9}{10} \right) = 4 \frac{1}{3} \text{ m}$

Alg.: Dolžina Špeline
 sobe je $1 \frac{19}{20} \text{ m}$, širina
 pa $4 \frac{1}{3} \text{ m}$.

7.



$1. \text{ dan} + 2. \text{ dan} + 3. \text{ dan} = ?$

?

1. dan ... $\frac{3}{4}$ od 2. dne

2. dan ... ?

3. dan ... $9\frac{1}{2} \text{ km} = 1\frac{2}{5} \text{ km} + \boxed{1. \text{ dan}}$

$$9\frac{1}{2} \text{ km} = 1\frac{2}{5} \text{ km} + \boxed{?}$$

$$\boxed{?} = 9\frac{1}{2} \text{ km} - 1\frac{2}{5} \text{ km}$$

$$= 9\frac{5}{10} - 1\frac{4}{10} =$$

$$= 8\frac{1}{10} \text{ km}$$

1. ugotovitev:

Prvi dan je prehodil
 $8\frac{1}{10} \text{ km}$.

1. dan ... $\frac{3}{4}$ od 2. dne = ?

$$8\frac{1}{10} \text{ km} = \frac{3}{4} \text{ od 2. dne} \Rightarrow 2. \text{ dan je } \frac{4}{3}$$

$$\frac{81}{10} : 3 = \frac{81}{10} \cdot \frac{1}{3} = \frac{27}{10} = 2,7 \text{ km} \dots 1 \text{ del}$$

$$\frac{2,7 \text{ km} \cdot 4}{10,8 \text{ km}} \dots 4 \text{ deli}$$

2. ugotovitev: Drugi dan je prehodil 10,8 km.

3. ugotovitev:

$$8\frac{1}{10} \text{ km} + 10,8 \text{ km} + 9\frac{1}{2} \text{ km} =$$

$$= 8,1 \text{ km} + 10,8 \text{ km} + 9,5 \text{ km} =$$

$$= \underline{28,4 \text{ km}} - \text{celotna pot.}$$

Celotna pot meni 28,4 km.