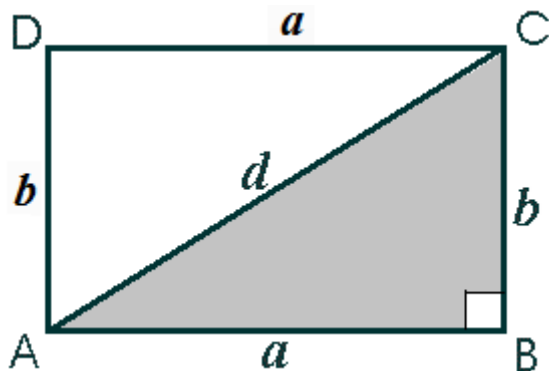


- V zvezek napiši naslov: **PITAGOROV IZREK V PRAVOKOTNIKU**

- Da boste snov lažje razumeli, si oglejte filmček (2. del – od 5 min 34s naprej)

<https://www.youtube.com/watch?v=Of00zr82k8c>

- Razlago prepisi, kot je zapisana spodaj (brez modrega oblačka)



Po Pitagorovem izreku lahko izračunamo dolžino diagonale.

Diagonala je v sivem trikotniku hipotenuza, a in b pa kateti.

$$d^2 = a^2 + b^2$$

$$a^2 = d^2 - b^2$$

$$b^2 = d^2 - a^2$$

OBESEG PRAVOKOTNIKA

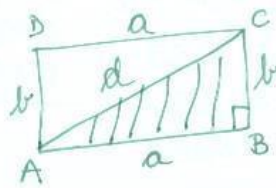
$$o = 2a + 2b$$

PLOŠČINA PRAVOKOTNIKA

$$p = a \cdot b$$

- Prepisi primera iz filmčka.
- Reši naloge iz učbenika, stran 186, nal. 1bc, 3bč, 5*, 8*. (naloge z zvezdico rešijo samo boljši učenci).
- Preveri rešitve, ki so spodaj.

PITAGOROV IZREK V PRAVOKOTNIKU



$$\begin{aligned} d^2 &= a^2 + b^2 \\ a^2 &= d^2 - b^2 \\ b^2 &= d^2 - a^2 \end{aligned}$$

$$\sigma = 2 \cdot a + 2 \cdot b$$

$$p = a \cdot b$$

učbenik str. 186, nal.

$$\begin{aligned} 1b.) \quad a &= 15 \text{ cm} \\ b &= 8 \text{ cm} \\ \hline d &= 17 \text{ cm} \end{aligned}$$

$$\begin{aligned} d^2 &= a^2 + b^2 \\ d^2 &= 15^2 + 8^2 \\ d^2 &= 225 + 64 \\ d^2 &= 289 \sqrt{} \\ d &= \sqrt{289} \\ d &= 17 \text{ cm} \end{aligned}$$

$$\begin{aligned} 1c.) \quad a &= 1,1 \text{ dm} \\ b &= 6 \text{ dm} \\ \hline d &= 6,1 \text{ dm} \end{aligned}$$

$$\begin{aligned} d^2 &= a^2 + b^2 \\ d^2 &= 1,1^2 + 6^2 \\ d^2 &= 1,21 + 36 \\ d^2 &= 37,21 \sqrt{} \\ d &= \sqrt{37,21} \\ d &= 6,1 \text{ dm} \end{aligned}$$

$$\begin{aligned} 3b.) \quad a &= 10 \text{ cm} \\ d &= 26 \text{ cm} \\ \hline \sigma &= 68 \text{ cm} \\ p &= 240 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} b^2 &= d^2 - a^2 \\ b^2 &= 26^2 - 10^2 \\ b^2 &= 676 - 100 \\ b^2 &= 576 \sqrt{} \\ b &= \sqrt{576} \\ b &= 24 \text{ cm} \end{aligned}$$

$$\begin{aligned} \sigma &= 2 \cdot a + 2 \cdot b \\ \sigma &= 2 \cdot 10 + 2 \cdot 24 \\ \sigma &= 20 + 48 \\ \sigma &= 68 \text{ cm} \end{aligned}$$

$$\begin{aligned} p &= a \cdot b \\ p &= 10 \cdot 24 \\ p &= 240 \text{ cm}^2 \end{aligned}$$

3c.) $b = 12 \text{ cm}$
 $d = 3,7 \text{ dm} = 37 \text{ cm}$
 $\sigma = 94 \text{ cm}$
 $p = 1128 \text{ cm}^2$

$$a^2 = d^2 - b^2$$

$$a^2 = 37^2 - 12^2$$

$$a^2 = 1369 - 144$$

$$a^2 = 1225$$

$$a = \sqrt{1225}$$

$$a = 35 \text{ cm}$$

$$\sigma = 2 \cdot a + 2 \cdot b$$

$$\sigma = 2 \cdot 35 + 2 \cdot 12$$

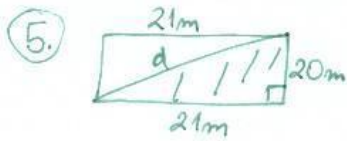
$$\sigma = 70 + 24$$

$$\sigma = 94 \text{ cm}$$

$$p = a \cdot b$$

$$p = 94 \cdot 12$$

$$p = 1128 \text{ cm}^2$$



$$d^2 = 20^2 + 21^2$$

$$d^2 = 400 + 441$$

$$d^2 = 841$$

$$d = \sqrt{841}$$

$$d = 29 \text{ m}$$

O: Ograja mora biti dolga 29m.

8.) $a = 8 \text{ cm}$
 $d = \frac{1}{4} \cdot a = \frac{5 \cdot 8}{4} = 10 \text{ cm}$
 $\sigma = 28 \text{ cm}$
 $p =$

$$\sigma = 2 \cdot a + 2 \cdot b$$

$$\sigma = 2 \cdot 8 + 2 \cdot b$$

$$\sigma = 16 + 12$$

$$\sigma = 28 \text{ cm}$$

$$p = a \cdot b$$

$$p = 8 \cdot 6$$

$$p = 48 \text{ cm}^2$$

$$b^2 = d^2 - a^2$$

$$b^2 = 10^2 - 8^2$$

$$b^2 = 100 - 64$$

$$b^2 = 36$$

$$b = \sqrt{36}$$

$$b = 6 \text{ cm}$$