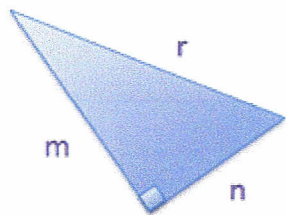
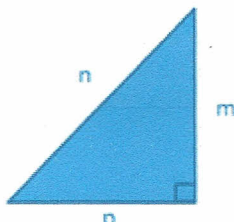


REŠITVE

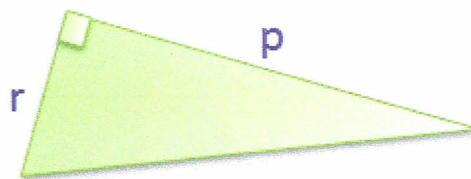
1. Trikotnikom na sliki zapiši vse možne povezave za dolžine stranic (vse tri oblike Pitagorovega izreka).



$$\begin{aligned} r^2 &= m^2 + n^2 \\ m^2 &= r^2 - n^2 \\ n^2 &= r^2 - m^2 \end{aligned}$$

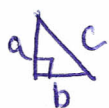


$$\begin{aligned} n^2 &= p^2 + m^2 \\ m^2 &= n^2 - p^2 \\ p^2 &= n^2 - m^2 \end{aligned}$$



$$\begin{aligned} p^2 &= r^2 + s^2 \\ r^2 &= p^2 - s^2 \\ s^2 &= p^2 - r^2 \end{aligned}$$

2. V pravokotnem trikotniku je ena kateta dolga $a = 12$ cm in druga 5 cm. Izračunaj dolžino hipotenuze, obseg in ploščino trikotnika.



$$\begin{aligned} a &= 12 \text{ cm} \\ b &= 5 \text{ cm} \\ c &= 13 \text{ cm} \\ \sigma &= 30 \text{ cm} \\ \mu &= 30 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} c^2 &= a^2 + b^2 \\ c^2 &= 12^2 + 5^2 \\ c^2 &= 144 + 25 \\ c^2 &= 169 \\ c &= \sqrt{169} \\ c &= 13 \text{ cm} \end{aligned}$$

$$\begin{aligned} \sigma &= a + b + c \\ \sigma &= 12 + 5 + 13 \\ \sigma &= 30 \text{ cm} \end{aligned}$$

$$\begin{aligned} \mu &= \frac{a \cdot b}{2} \\ \mu &= \frac{12 \cdot 5 \cdot 1}{2} \\ \mu &= 30 \text{ cm}^2 \end{aligned}$$

3. V pravokotnem trikotniku je ena kateta dolga $a = 3$ cm in hipotenuza $c = 5$ cm. Izračunaj dolžino druge katete b , obseg in ploščino trikotnika.



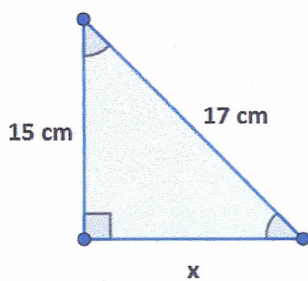
$$\begin{aligned} a &= 3 \text{ cm} \\ c &= 5 \text{ cm} \\ b &= 4 \text{ cm} \\ \sigma &= 12 \text{ cm} \\ \mu &= 6 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} b^2 &= c^2 - a^2 \\ b^2 &= 25 - 9 \\ b^2 &= 16 \\ b &= \sqrt{16} \\ b &= 4 \text{ cm} \end{aligned}$$

$$\begin{aligned} \sigma &= a + b + c \\ \sigma &= 3 + 4 + 5 \\ \sigma &= 12 \text{ cm} \end{aligned}$$

$$\begin{aligned} \mu &= \frac{a \cdot b}{2} \\ \mu &= \frac{3 \cdot 4 \cdot 1}{2} \\ \mu &= 6 \text{ cm}^2 \end{aligned}$$

4. Izračunaj tretjo stranico, obseg in ploščino pravokotnega trikotnika na sliki:



$$\begin{aligned} x^2 &= 17^2 - 15^2 \\ x^2 &= 289 - 225 \\ x^2 &= 64 \\ x &= \sqrt{64} \\ x &= 8 \text{ cm} \end{aligned}$$

$$\begin{aligned} \sigma &= 8 + 15 + 17 \\ \sigma &= 40 \text{ cm} \end{aligned}$$

$$\begin{aligned} \mu &= \frac{8 \cdot 15 \cdot 1}{2} \\ \mu &= 60 \text{ cm}^2 \end{aligned}$$