

KROG IN KROŽNICA

2. Izračunaj obseg in ploščino kroga, če meri polmer kroga 9 cm.

$$\begin{aligned}r &= 9 \text{ cm} \\ \sigma, p &= ? \\ d &= 2r \\ d &= 2 \cdot 9 \\ d &= 18 \text{ cm} \quad 1\end{aligned}$$

$$\begin{aligned}\sigma &= \pi \cdot d \\ \sigma &= 3,14 \cdot 18 \quad 1 \\ \sigma &= \underline{56,52 \text{ cm}} \quad 1\end{aligned}$$

$$\begin{aligned}p &= \pi r^2 \\ p &= \pi \cdot 9^2 \quad 1 \\ p &= \pi \cdot 81 \quad 1 \\ p &= \underline{254,34 \text{ cm}^2} \quad 1\end{aligned}$$

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3. Izračunaj obseg in ploščino kroga s premerom 35 m.

$$\begin{aligned}d &= 35 \text{ m} \\ \sigma, p &= ?\end{aligned}$$

$$\begin{aligned}\sigma &= \pi \cdot d \\ \sigma &= 3,14 \cdot 35 \quad 1 \\ \sigma &= \underline{109,9 \text{ m}} \quad 1\end{aligned}$$

$$\begin{aligned}r &= \frac{d}{2} \\ r &= \frac{35}{2} \\ r &= \underline{17,5 \text{ m}} \quad 1\end{aligned}$$

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$$\begin{aligned}p &= \pi r^2 \\ p &= 3,14 \cdot 17,5^2 \quad 1\end{aligned}$$

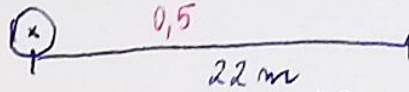
$$\begin{aligned}p &= 3,14 \cdot 306,25 \quad 1 \\ p &= \underline{961,625 \text{ m}^2} \quad 1\end{aligned}$$

4. Kolikokrat se kolo s premerom 1,4 dm zavrti na 22 m dolgi poti?

Zavrti se ^{0,5} 50-krat.

$$d = 1,4 \text{ dm}$$

$$\sigma = 2,$$



$$22 \text{ m} = 220 \text{ dm} \quad 0,5$$

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$$\sigma = \pi \cdot d$$

$$220 : 4,396 = 50,05 \quad 0,5$$

$$\sigma = 3,14 \cdot 1,4 = 4,396 \text{ dm} \quad 1$$

5. Izračunaj polmer kroga, če meri njegov obseg 144π m.

$$\sigma = 144\pi \text{ m}$$

$$r = ?$$

$$\sigma = \pi \cdot d \quad d = 144 \text{ m} \quad 1$$

$$d = \sigma : \pi \quad r = d : 2$$

$$d = \frac{144\pi}{\pi} \quad 1 \quad r = 144 : 2$$

$$r = 72 \text{ m} \quad 1$$

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6. Na travniku smo na količek privezali kozo. Kozar vsak dan popase $12,56 \text{ m}^2$ veliko področje v obliki kroga. Kako dolgo vrv ima koza?

$$p = 12,56 \text{ m}^2$$

$$r = ?$$

$$p = \pi \cdot r^2$$



$$r = \sqrt{4} \quad 1$$

$$r = 2 \text{ m} \quad 1$$

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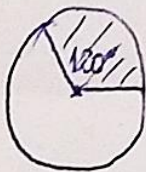
$$r = \sqrt{\frac{p}{\pi}}$$

$$r = \sqrt{\frac{12,56}{3,14}} \quad 1$$

Koza ima 2m

dolgo vrv ^{0,5}

7. Izračunaj obseg krožnega izseka v krogu s polmerom 15 dm in središčnim kotom $\alpha = 120^\circ$.



$$l = \frac{\sigma}{3}$$

$$l = \frac{94,2}{3}$$

$$l = 31,4 \text{ dm}$$

$$\sigma = \pi \cdot d$$

$$\sigma = 3,14 \cdot 30 \quad 1$$

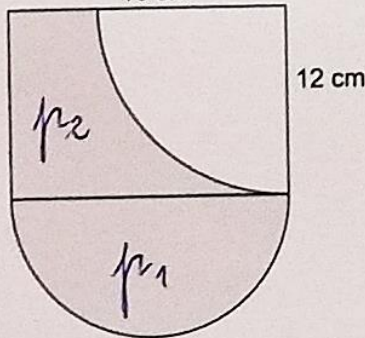
$$\sigma = 94,2 \text{ dm} \quad 1$$

$$\sigma = 31,4 + 2 \cdot 15 \quad 1$$

$$\sigma = 61,4 \text{ dm} \quad 1$$

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8. Izračunaj ploščino lika na sliki. Potrebne podatke preberi s slike.



$$p_1 = \frac{\pi \cdot 12^2}{2}$$

$$p_1 = \frac{3,14 \cdot 144}{2}$$

$$p_1 = 100,48 \text{ cm}^2 \quad 1$$

$$p_2 = 16 \cdot 12 - \frac{\pi \cdot 12^2}{4}$$

$$p_2 = 192 - \frac{113,04}{1} \quad 1$$

$$p_2 = 78,96 \text{ cm}^2 \quad 1$$

$$p = 100,48 + 78,96$$

$$p = 179,44 \text{ cm}^2 \quad 1$$

8.12