

GEOMETRIJSKA TIJELA

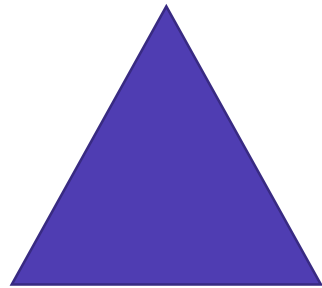
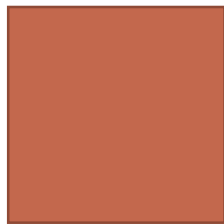
VJEŽBA ZA OCJENU



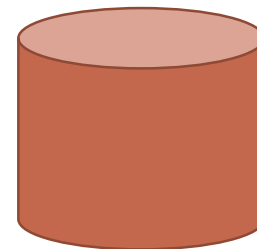
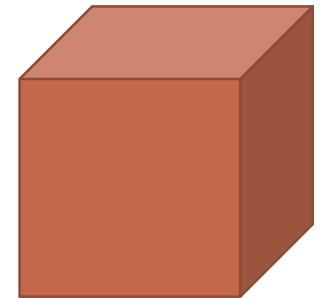
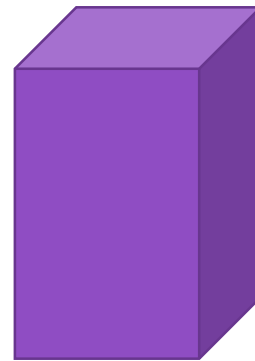


PODSJETIMO SE

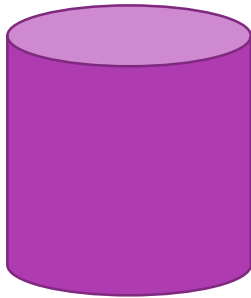
- Geometrijski je lik dio ravnine te je omeđen dužinama.



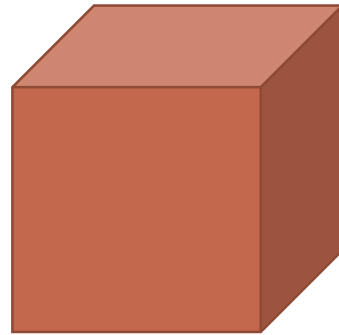
- Geometrijsko tijelo je omeđeni dio prostora.



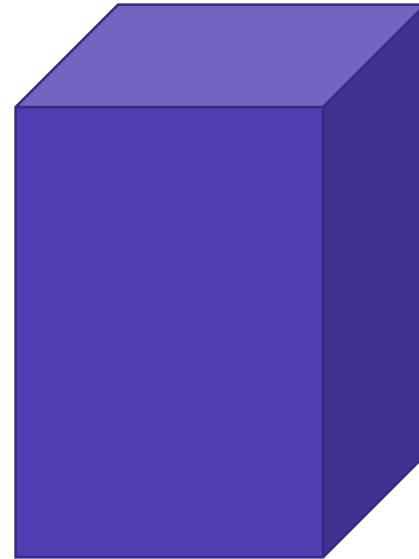
NEKA OD GEOMETRIJSKA TIJELA SU:



Valjak



Kocka

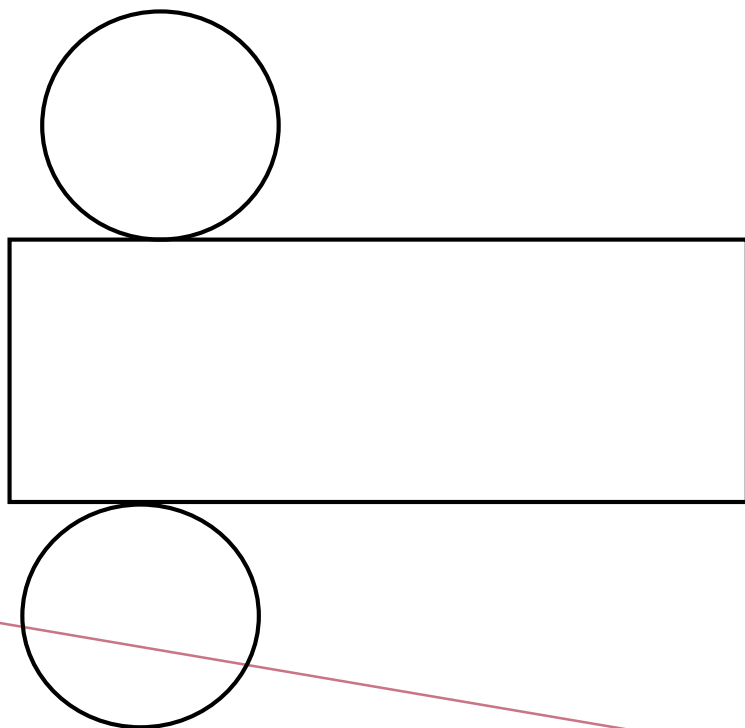


Kvadar



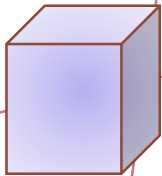
VALJAK

- Valjak je oblo geometrijsko tijelo omeđeno s dvama sukladnim krugovima koje nazivamo bazama valjka i zakrivljenom plohom koju nazivamo plaštem valjka.



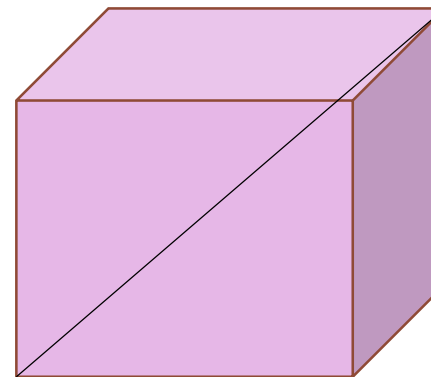
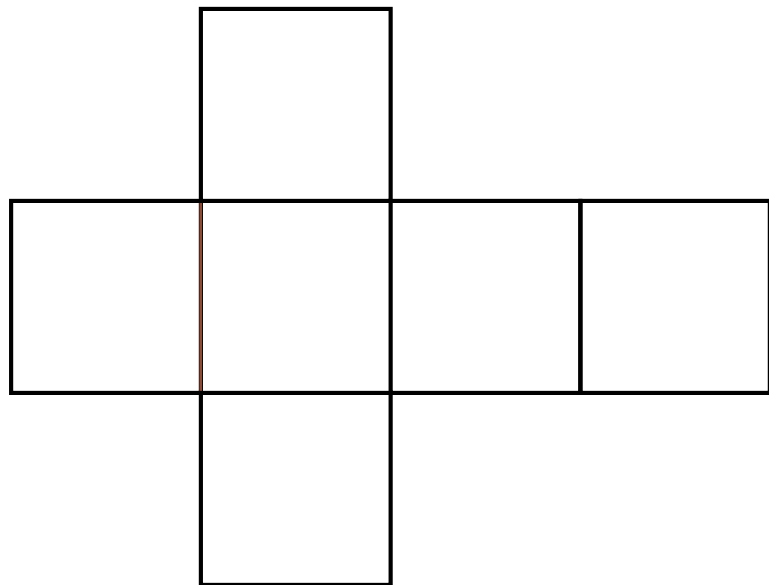
Oplošje valjka računa se po formuli:

$$O = 2r \cdot \pi \cdot (r + h).$$



KOCKA

- Kocka je **tijelo** sa svim bridovima jednake duljine. Ima 8 vrhova, 12 bridova i 6 strana

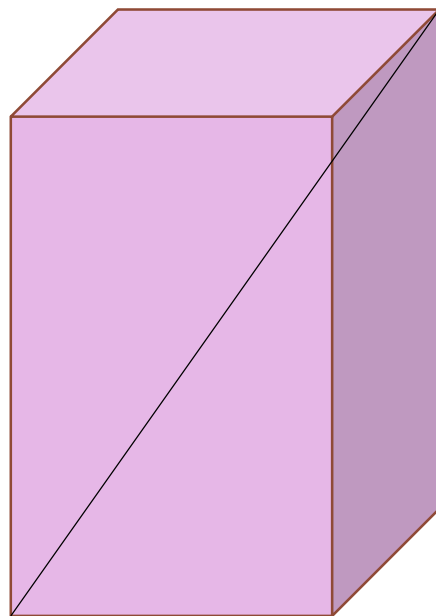
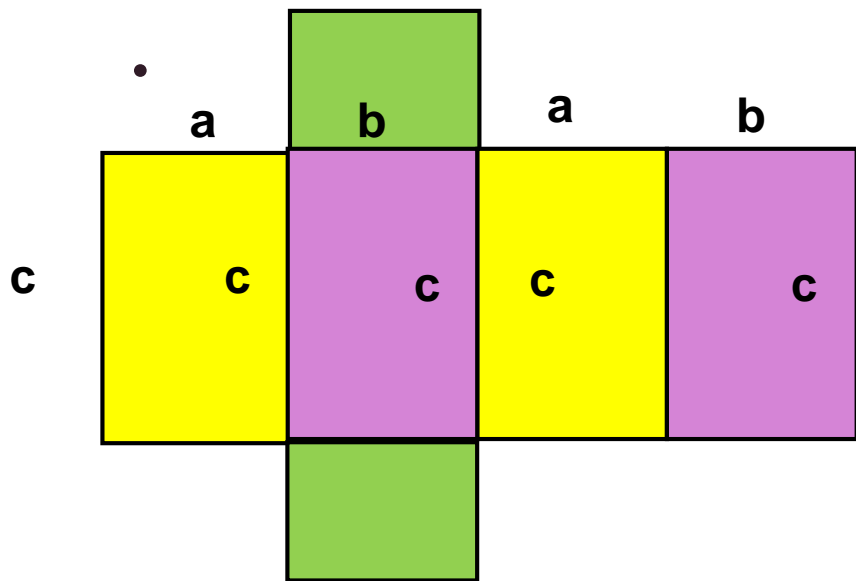


Oplošje kocke s bridom duljine a iznosi $O=6 \cdot a^2$

Prostorna dijagonala kocke se računa po formuli $d=a\sqrt{2}$



KVADAR



Kvadar je geometrijsko tijelo koje spada u obitelj uspravnih prizmi.

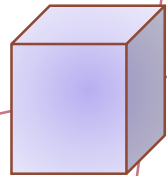
Kvadar ima:

- 8 vrhova
- 6 strana
- 12 bridova.

Prostorna dijagonala kvadra se računa po formuli

$$D = \sqrt{a^2 + b^2 + c^2}$$

Oplošje kvadra s bridovima duljine a , b , c iznosi $O = 2 \cdot (a \cdot b + a \cdot c + b \cdot c)$



PRIMJER:



Izračunajmo duljinu brida kocke oplošja 150 dm²:

$$O=6 \cdot a^2$$

$$150=6 \cdot a^2$$

$$a^2=150:6$$

$$a^2=25$$

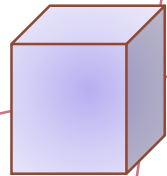
$$\sqrt{a^2}=5$$

$$a=5$$

Rješenje:

Duljina brida kocke oplošja 150dm² iznosi 5 dm.





PRIMJER 2



Duljina prostorne dijagonale kocke iznosi 12. Odredimo oplošje te kocke.

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$$D = a\sqrt{3}$$

$$12 = a\sqrt{3}$$

$$a = \frac{12}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$$

$$a = \frac{12\sqrt{3}}{\sqrt{3}^2}$$

$$a = 4\sqrt{3}$$

$$O = 6a^2$$

$$O = 6(4\sqrt{3})^2$$

$$O = 6 + 16 + 3$$

$$O = 288$$





ZADACI

- Oplošje kocke
- Oplošje kvadra
- Oplošje valjka





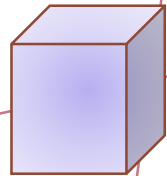
OPLOŠJE KOCKE



Koliko iznosi oplošje kocke ako mu je duljina brida $a = 6 \text{ cm}^2$

- a) 214
- b) 215
- c) 216**
- d) 217





OPLOŠJE KVADRA



- Koliko iznosi oplošje kvadra ako su mu duljine bridova $a=2\text{cm}$, $b=3\text{cm}$, $c=4\text{cm}$?

- a. 50 cm^2
- b. 51 cm^2
- c.** 52 cm^2
- d. 53 cm^2



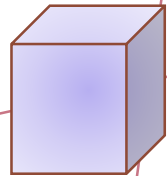


OPLOŠJE VALJKA

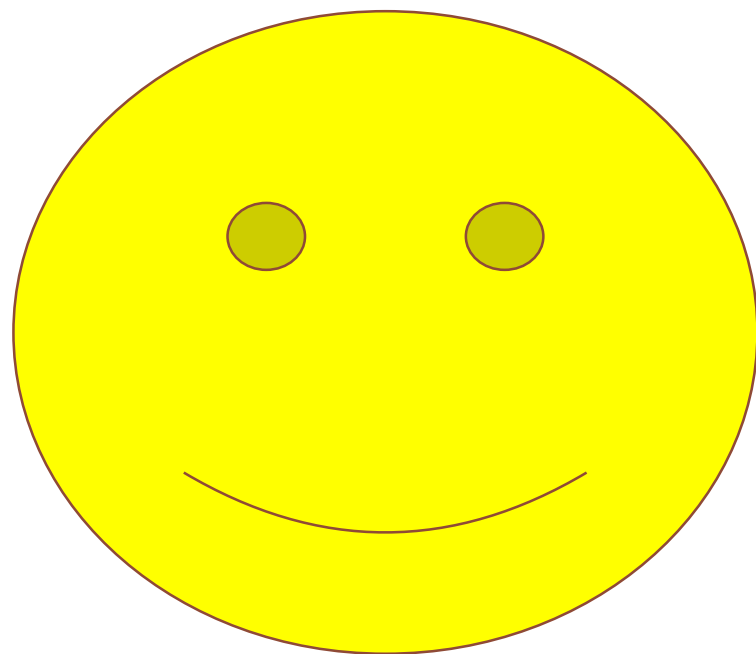


- Koliko iznosi oplošje valjka ako mu je polumjer $r = 4$ cm, a visina $h = 6$ cm?
 - $75 \pi \text{ cm}^2$
 - $80 \pi \text{ cm}^2$**
 - $85 \pi \text{ cm}^2$
 - $90 \pi \text{ cm}^2$





BRAVO!



NAŽALOST POGREŠNO

