

Matematika 9.

GEOMETRIJSKA TIJELA

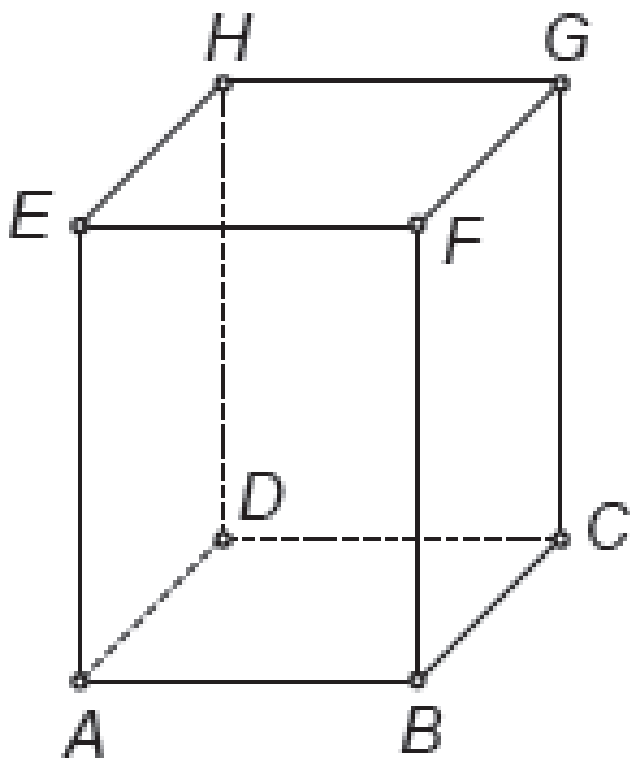
107.sat: Kvadar

Udžbenik str.178.-181.

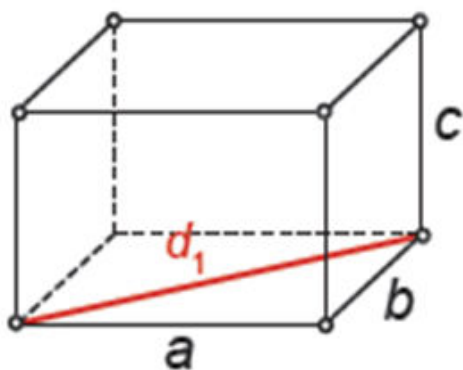
Naslov prepisite u bilježnicu!

KVADAR

- Kvadar je prizma čija je osnovka (baza) pravokutnik.

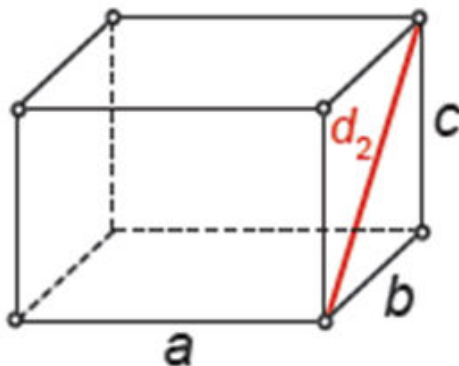


Plošne dijagonale (dijagonale strana) kvadra:



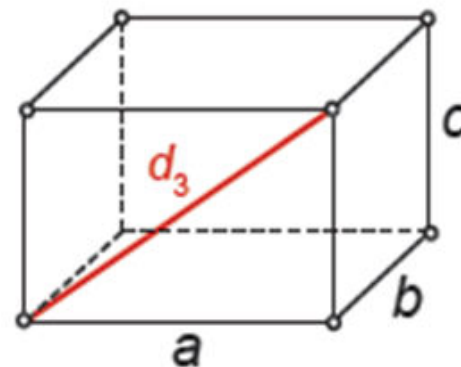
$$d_1^2 = a^2 + b^2$$

$$d_1 = \sqrt{a^2 + b^2}$$



$$d_2^2 = b^2 + c^2$$

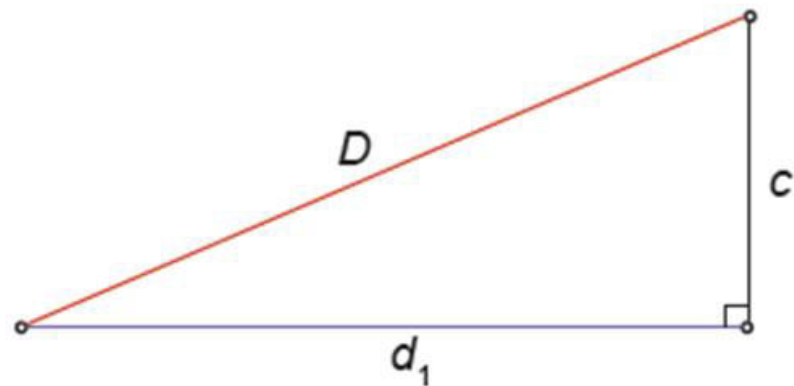
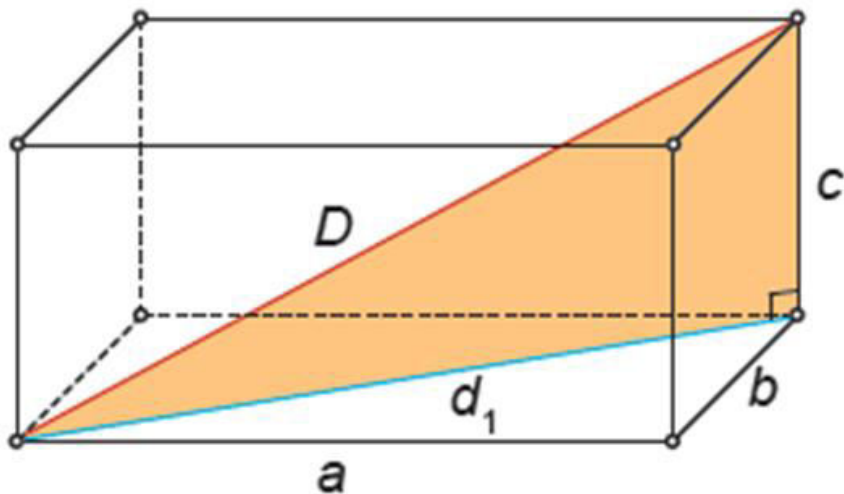
$$d_2 = \sqrt{b^2 + c^2}$$



$$d_3^2 = a^2 + c^2$$

$$d_3 = \sqrt{a^2 + c^2}$$

Izrazimo formulom duljinu prostorne dijagonale kvadra.



$$D^2 = d_1^2 + c^2$$

$$D^2 = a^2 + b^2 + c^2$$

$$D^2 = a^2 + b^2 + c^2$$

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

Prepisati „upamti” sa 179.stranice u udžbeniku.

Primjer 1.

Izračunajmo duljinu prostorne dijagonale kvadra, ako duljine njegovih bridova iznose:

$$a = 0.15m = 15cm$$

$$b = 2dm = 20 cm$$

$$c = 60cm$$

$$D = ?$$

$$D^2 = a^2 + b^2 + c^2$$

$$D^2 = 15^2 + 20^2 + 60^2$$

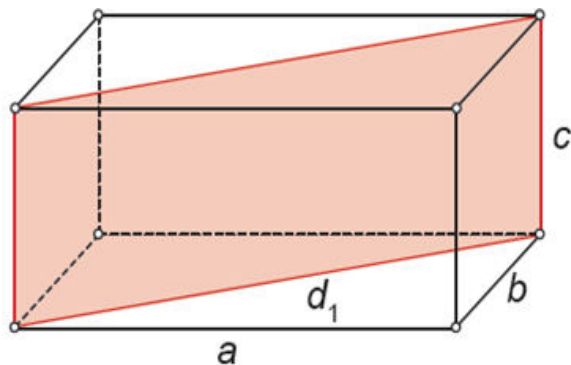
$$D^2 = 4225 / \sqrt{\quad}$$

$$D = 65 cm$$

Prepisati „upamti” sa 180.stranice u udžbeniku.

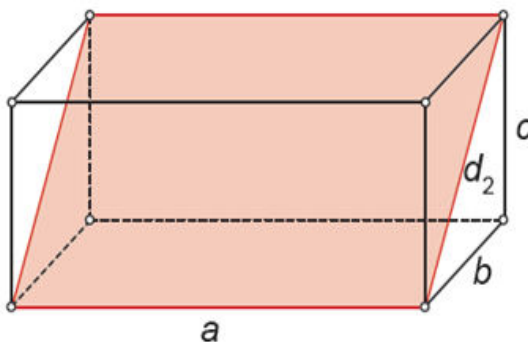
Primjer 2.

Izračunajmo površine svih triju dijagonalnih presjeka kvadra s bridovima duljina a , b , c .



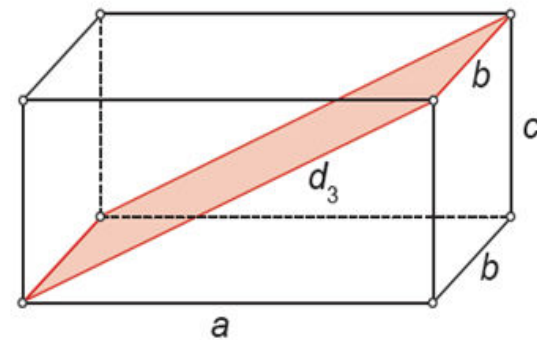
$$P_1 = d_1 \cdot c$$

$$d_1^2 = a^2 + b^2$$



$$P_2 = d_2 \cdot a$$

$$d_2^2 = b^2 + c^2$$



$$P_3 = d_3 \cdot b$$

$$d_3^2 = a^2 + c^2$$

DOMAĆA ZADAĆA

- Riješiti 5.a), 8. u udžbeniku na stranici 181.

- Pogledati:

https://edutorij.e-skole.hr/share/proxy/alfresco-noauth/edutorij/api/proxy-guest/d2d61772-7e7a-4f5b-98f9-6bbb5d5d13ca/html/10663_Kvadar.html

Pozdrav! 😊