



Englische Übungen zu Körper

1. A cuboid has the given lateral edges a , b and c . Calculate the
 - a. volume,
 - b. surface and
 - c. length of its space diagonal and the diagonals of its lateral faces!
 - 1) $a = 45 \text{ cm}$, $b = 36 \text{ cm}$, $c = 24 \text{ cm}$
 - 2) $a = b = 12 \text{ m}$, $c = 6 \text{ m}$
 - 3) $a = b = c = 6.4 \text{ m}$

2. A cuboid has edges with the lengths of 12 cm , 15 cm and 30 cm . Calculate its mass if the cuboid is made of silver with density $\rho = 10\,500 \text{ kg/m}^3$!





3. A cube has edges with the length of 25 cm. Calculate its mass if the cube is made of the given material.
- Wood ($\rho = 500 \text{ kg/m}^3$)
 - Glass ($\rho = 2\,500 \text{ kg/m}^3$)
 - Gold ($\rho = 19\,300 \text{ kg/m}^3$)

4. Choose to complete the following sentence correctly.
The ____^①____ of a pyramid with square base of six centimetres and height of 5 centimetres is calculated with ____^②____.

①	
<input type="radio"/>	mass
<input type="radio"/>	area
<input type="radio"/>	volume

②	
<input type="radio"/>	$6^2 \cdot 5$
<input type="radio"/>	$6 \cdot 2 \cdot 5$
<input type="radio"/>	$6^2 + 5^2$

Vocabulary

Englisch	Deutsch
curboid	Quader
lateral edge	Seitenkante
lateral face	Seitenfläche
volume	Rauminhalt, Volumen
surface	Inhalt der Oberfläche
diagonals of a lateral face	Flächendiagonale
cuboid	Quader
edge	Kante
mass	Masse
silver	Silber
density	Dichte
cube	Würfel
space diagonal	Raumdiagonale





Solutions

1.
 - a.
 - 1) $V \approx 38\,900 \text{ cm}^3$
 - 2) $O \approx 7\,130 \text{ cm}^2$
 - 3) $d_1 \approx 58 \text{ cm}; d_2 = 51 \text{ cm}; d_3 \approx 43 \text{ cm}; d \approx 62 \text{ cm}$
 - b.
 - 1) $V = 864 \text{ m}^3$
 - 2) $O = 576 \text{ m}^2$
 - 3) $d_1 \approx 17 \text{ m}; d_2 = 13.4 \text{ m}; d_3 \approx 13.4 \text{ m}; d = 18 \text{ cm}$
 - c.
 - 1) $V \approx 252 \text{ m}^2$
 - 2) $O \approx 246 \text{ m}^2$
 - 3) $d_1 \approx 9.1 \text{ m}; d \approx 11.1 \text{ m}$
2. The mass is 56.7 kg.
3.
 - a. 7.8 kg
 - b. 39 kg
 - c. 302 kg
4. The volume of a pyramid with square base of six centimetres and height of 5 centimetres is calculated with $6 \cdot 2 \cdot 5$.

