



Englische Übungen zu Einführung in die Geometrie

1. A cuboid has a length of 7 cm, a width of 4 cm, and a height of 6 cm. Calculate the sum of the lengths of all the edges
 - a. in the face ABCD,
 - b. in the face ABFE,
 - c. in the face ADHE,
 - d. of the complete cuboid.
2. A cuboid has a length of 15 cm and a width of 10 cm. The sum of the lengths of all its edges is 138 cm. Calculate the height of the cuboid.
3. A cube has edges with a length of 15 cm. Calculate the sum of the lengths of all the edges
 - a. in the face ADHE,
 - b. of the complete cube.
4.
 - a. Which edges of the cuboid are parallel to the edge BF?
 - b. Which edges are perpendicular to the edge GH?
 - c. Which faces are intersecting in the edge GH?

Vocabulary

| Englisch | Deutsch |
|------------------|--------------------|
| cuboid | Quader |
| length | Länge |
| width | Breite |
| height | Höhe |
| to calculate | berechnen |
| edge | Kante |
| face | Begrenzungsfläche |
| cube | Würfel |
| parallel to | parallel zu |
| perpendicular to | normal zu (auf) |
| to intersect | einander schneiden |





Solutions

1. A cuboid has a length of 7 cm, a width of 4 cm, and a height of 6 cm. Calculate the sum of the lengths of all the edges
 - a. in the face ABCD,
22 cm
 - b. in the face ABFE,
26 cm
 - c. in the face ADHE,
20 cm
 - d. of the complete cuboid.
68 cm

2. A cuboid has a length of 15 cm and a width of 10 cm. The sum of the lengths of all its edges is 138 cm. Calculate the height of the cuboid.
9,5 cm

3. A cube has edges with a length of 15 cm. Calculate the sum of the lengths of all the edges
 - a. in the face ADHE,
60 cm
 - b. of the complete cube.
1 m 80 cm

4.
 - a. Which edges of the cuboid are parallel to the edge BF?
AE, CG, DH
 - b. Which edges are perpendicular to the edge GH?
FG, EH, CG, DH
 - c. Which faces are intersecting in the edge GH?
EFGH, CGHD

