VOLUME AND SURFACE AREA FORMULAS

Interactive test

Select one correct answer to each of the questions in the test and press the Finish button at the end. The answers will be validated automatically.

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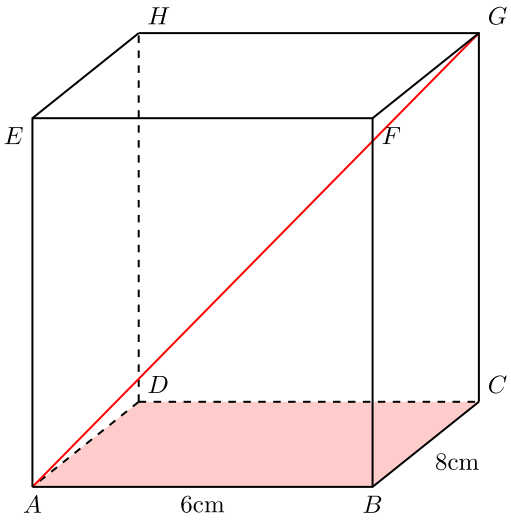
1. The base of a rectangular box $ABCDEFGH$ has sides $|AB| = 6\,\text{cm}$ and $|BC| = 8\,\text{cm}$. The angle between the solid diagonal AG and the base ABC is $60°$. Find the volume of the box.



A

B

C

D

E

2. Find the volume (in liters) of a bucket. The bucket is in the shape of frustum of a cone (see the picture) with the top and bottom diameter of 23 cm and 18 cm and the slant height of 17 cm. Round your answer to 2 decimal places.

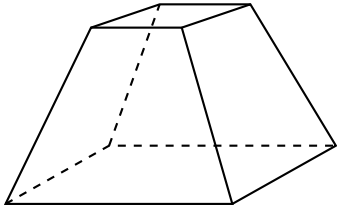
A

B

C

D

3. A frustum of a pyramid has square ends and the squares have sides 18 cm and 6 cm long, respectively. Calculate the surface area of the frustum if the perpendicular distance between its ends is 8 cm.



A

B

C

D

4. How much paper do we need to label the can of peas with diameter of 10 cm and height of 20 cm? (Label covers the side of the can completely, the bottom and the top base are not labelled.) Round your result to 1 decimal place.

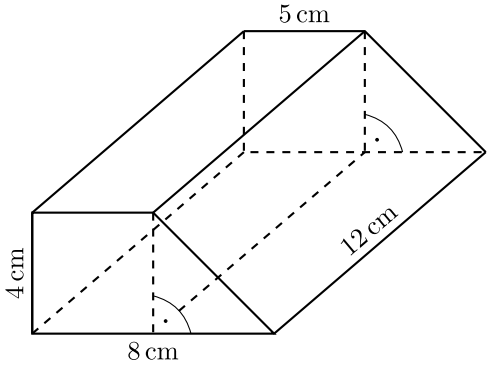
A

B

C

D

5. Find the surface area of the trapezoidal prism from the picture below.



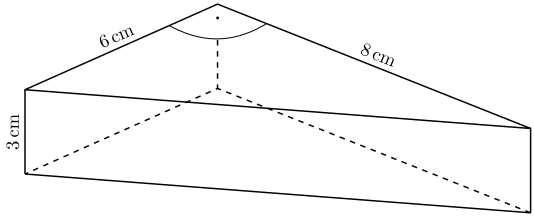
A

B

C

D

6. Find the surface area of the right triangular prism from the picture below.



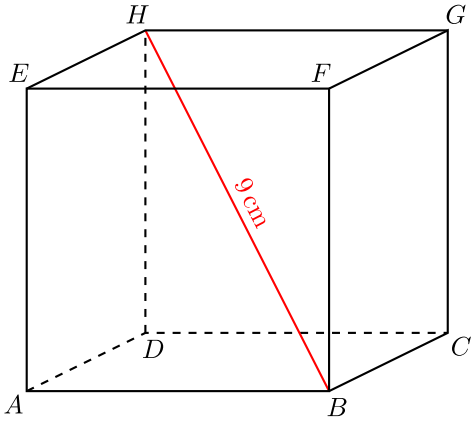
A

B

C

D

7. The length of a space diagonal of a cube is 9 cm. Find the volume of the cube.



A

B

C

D

FINISH

This test has been generated in the Math for Teacher application,
a part of the Math for You education portal – `math4u.vsb.cz`.