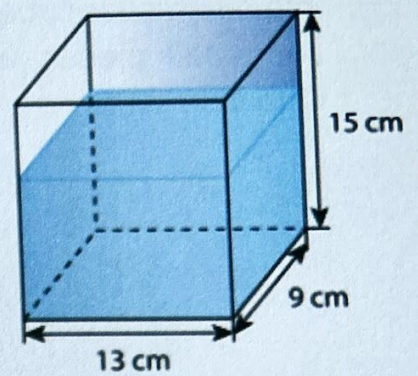
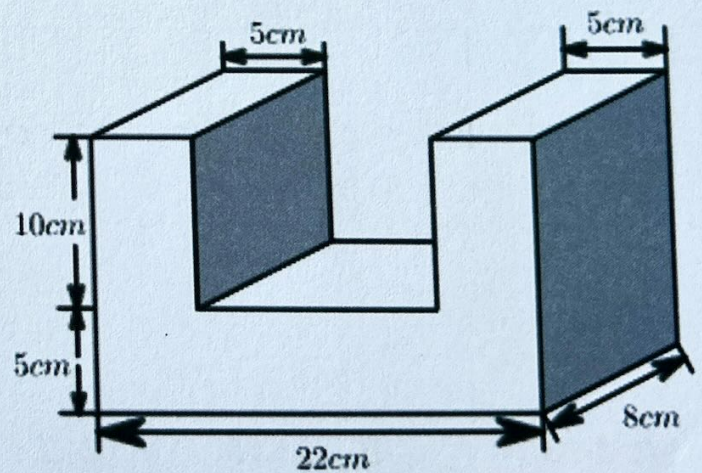


1

The container is $\frac{2}{3}$ full. To fill up the container, _____ cm^3 of water is needed.

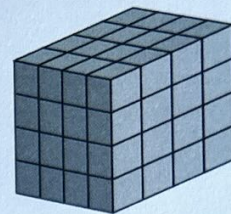


2 Find the total volume and surface area of the prism.



1

Akash's birthday cake is in the form of a $4 \times 4 \times 4$ inch cube. The cake has icing on the top and the four side faces, and no icing on the bottom. Suppose the cake is cut into 64 smaller cubes, each measuring $1 \times 1 \times 1$ inch, as shown below. How many of the small pieces will have icing on exactly two sides? (2020 AMC 8 Problem, Question #9)



A. 12

B. 16

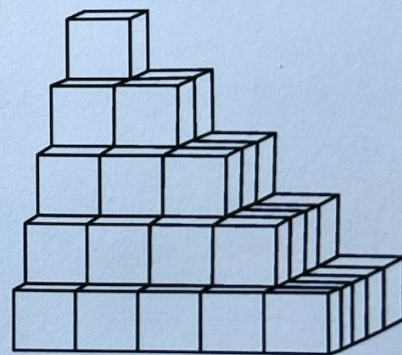
C. 18

D. 20

E. 24

2

Judy paints the solid figure red on the surface (including the bottom). She counts how many small cubes have three red faces, and how many have two red faces. What is the ratio between the two amounts?



A. 5 : 3

B. 16 : 15

C. 2 : 1

D. 4 : 5

E. 12 : 5