

# Advanced Complete MathSmart®

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### **Answers**

195

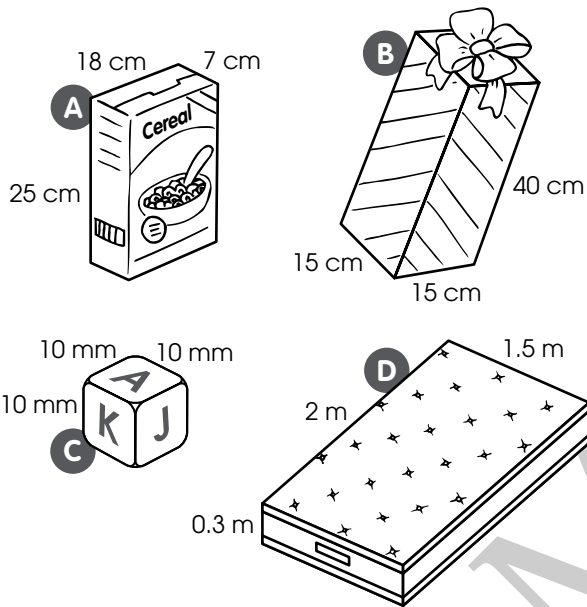
solving a variety of word problems that involve finding volume, capacity, and mass



### Math Skills

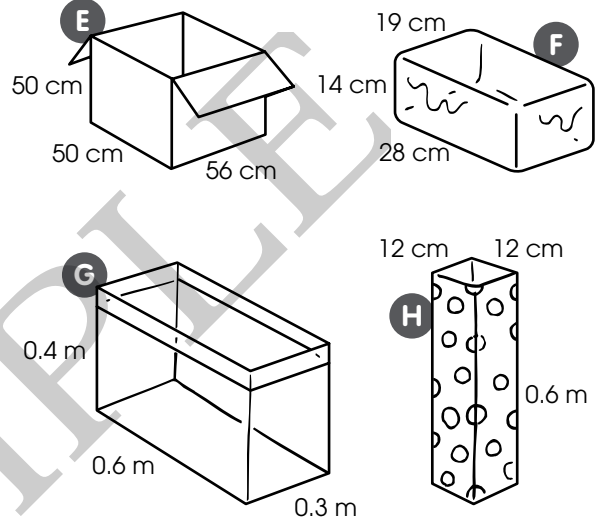
① Find the volume, capacity, and mass.

#### Volume



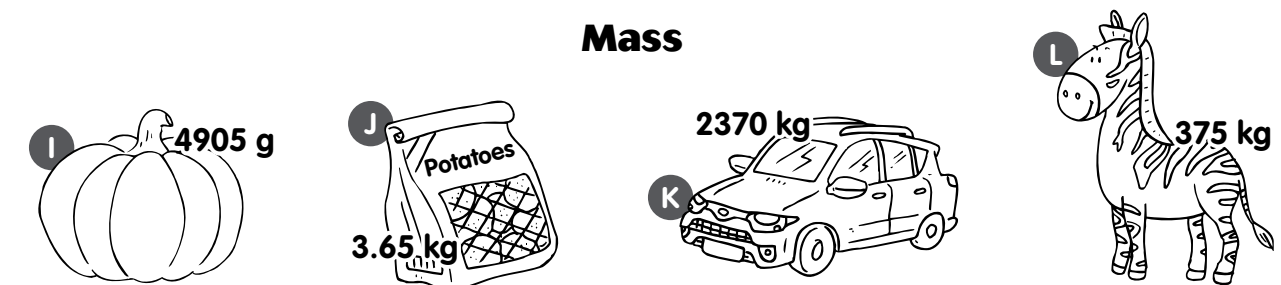
A \_\_\_\_\_ = \_\_\_\_\_ ( $\text{cm}^3$ )  
 B \_\_\_\_\_ = \_\_\_\_\_  
 C \_\_\_\_\_ = \_\_\_\_\_  
 D \_\_\_\_\_ = \_\_\_\_\_

#### Capacity



E \_\_\_\_\_ = \_\_\_\_\_ (mL)  
 F \_\_\_\_\_ = \_\_\_\_\_  
 G \_\_\_\_\_ = \_\_\_\_\_  
 H \_\_\_\_\_ = \_\_\_\_\_

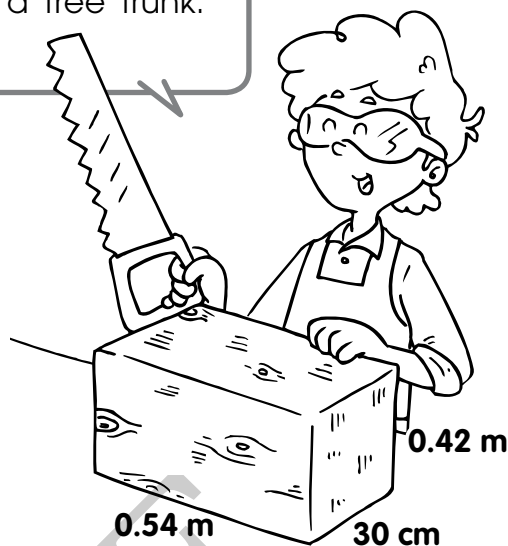
#### Mass



\_\_\_\_\_ kg      \_\_\_\_\_ g      \_\_\_\_\_ t      \_\_\_\_\_ t  
 \_\_\_\_\_ mg      \_\_\_\_\_ mg      \_\_\_\_\_ g      \_\_\_\_\_ g

②

I cut this rectangular wooden block out of a tree trunk.  
What is its volume?



Its volume is \_\_\_\_\_  $\text{cm}^3$ .

- ③ A cookie container has a length of 12 cm, a width of 12 cm, and a height of 7.5 cm. What is its volume?

Its volume is \_\_\_\_\_  $\text{cm}^3$ .

- ④ A cardboard box has a volume of  $2000 \text{ cm}^3$ . It has a width of 10 cm and its height is twice the width. What is the length of the cardboard box?

The length of the cardboard box is \_\_\_\_\_ cm.

- ① A game has 19 rounds. Peter has scored a mean of 32 points in the first 14 rounds. If he wants a mean of 28 points for each round, how many points does he need in the remaining 5 rounds?

Total points in 14 rounds: \_\_\_\_\_  $\times$  \_\_\_\_\_ = \_\_\_\_\_

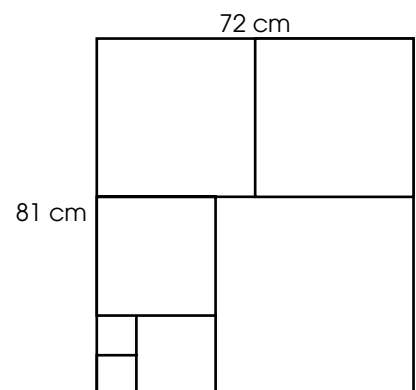
Total points needed in 19 rounds: \_\_\_\_\_  $\times$  \_\_\_\_\_ = \_\_\_\_\_

Points needed: \_\_\_\_\_  $-$  \_\_\_\_\_ = \_\_\_\_\_

Peter needs \_\_\_\_\_ in total in the remaining 5 rounds.

- ② Anna got home at 5:41 p.m. She studied for  $1\frac{1}{2}$  h, had dinner for  $\frac{3}{4}$  h, and read until her bedtime. If she went to bed at 9:26 p.m., how long did she read?

- ③ Tim arranges square tiles into a rectangle that measures 81 cm by 72 cm. What is the area of the smallest tile?



**Topics covered:**

**Question 1**

- whole numbers
- data management

**Question 2**

- fractions
- time

**Question 3**

- area
- shapes

- ④ Sally's fish tank is a 20-cm cube. It is  $\frac{3}{4}$  full. How many more millilitres of water is needed to fill it so that it is  $\frac{7}{8}$  full?
- ⑤ Dory swam 1250 m. She swam the first 210 m at 3 m in a second and the rest at 2 m in a second. If Dory started swimming at 11:06:48 a.m., what time did she finish swimming?
- ⑥ George built a pentagonal prism using only 2-cm and 5-cm sticks. The perimeter of the base is 10 cm. If one of the sticks was broken, what is the probability that it is a 5-cm stick?

**Topics covered:****Question 4**

- fractions
- capacity

**Question 5**

- whole numbers
- time

**Question 6**

- perimeter
- solids
- probability