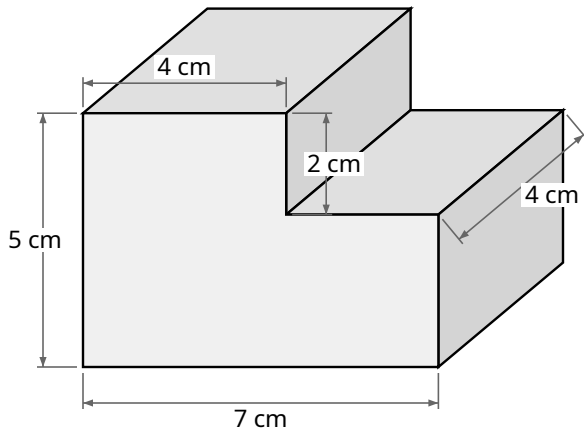




Cuboid Volume - set samples - paper 1

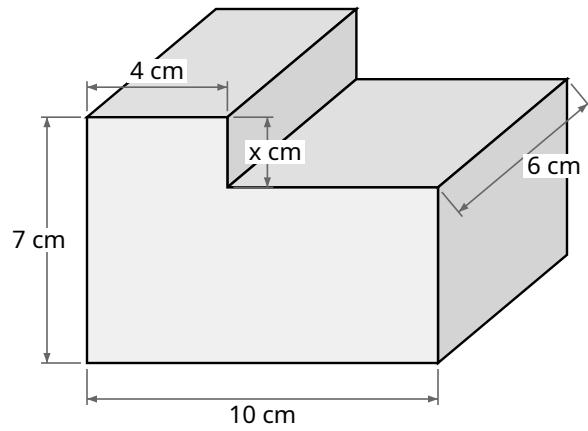
Diagrams are not to scale.

1. What is the volume of this solid?



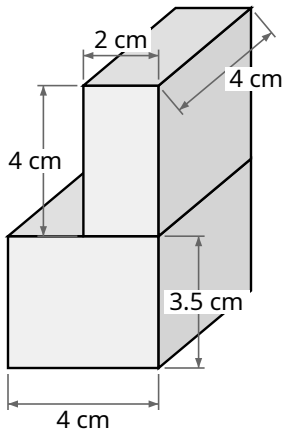
ans _____

3. The total volume is 348 cm^3 . What is the missing length x ?



ans _____

2. What is the total volume of the compound shape?



ans _____



Cuboid Volume - set samples - Answers

1. Full cuboid: $7 \times 5 \times 4 = 140 \text{ cm}^3$
Cut-out width: $7 - 4 = 3 \text{ cm}$
Cut-out cuboid: $3 \times 2 \times 4 = 24 \text{ cm}^3$
Remaining: $140 - 24 = 116 \text{ cm}^3$
Answer: 116 cm³
2. Top cuboid: $2 \times 4 \times 4 = 32 \text{ cm}^3$
Bottom cuboid: $4 \times 3.5 \times 4 = 56 \text{ cm}^3$
Total: $32 + 56 = 88 \text{ cm}^3$
Answer: 88 cm³
3. Full cuboid: $10 \times 7 \times 6 = 420 \text{ cm}^3$
Cut-out volume: $420 - 348 = 72 \text{ cm}^3$
Cut-out width: $10 - 4 = 6 \text{ cm}$
Cut-out width x depth: $6 \times 6 = 36 \text{ cm}^2$
 $x = \text{Cut-out volume} \div \text{Area} = 72 \div 36 = 2 \text{ cm}$
Answer: 2 cm