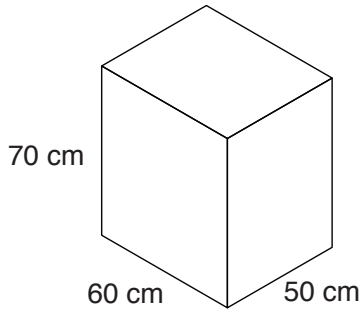


# What is problem solving?

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- 1 The diagram shows a **cuboid**.  
What questions might go with the diagram.  
Do not answer your questions at this stage.



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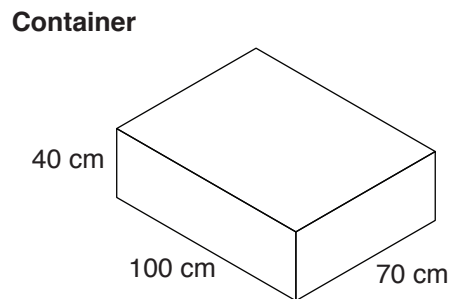
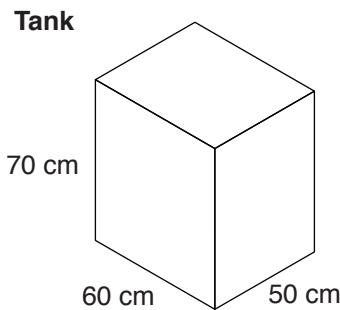
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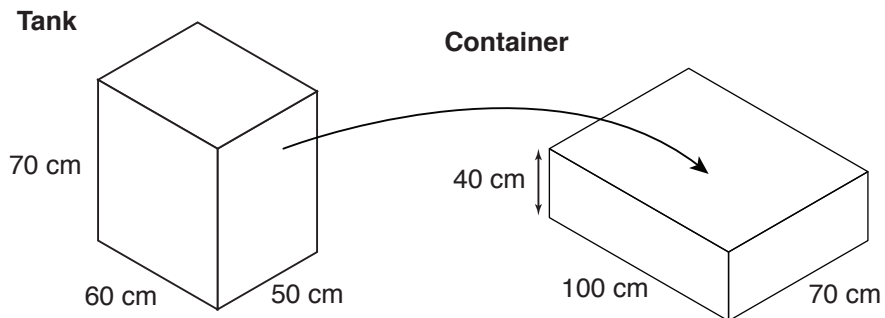
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- 2 The diagram shows a **tank** and a **container**.  
The tank is full of oil.  
The container is empty.  
Draw a sketch to show the information.



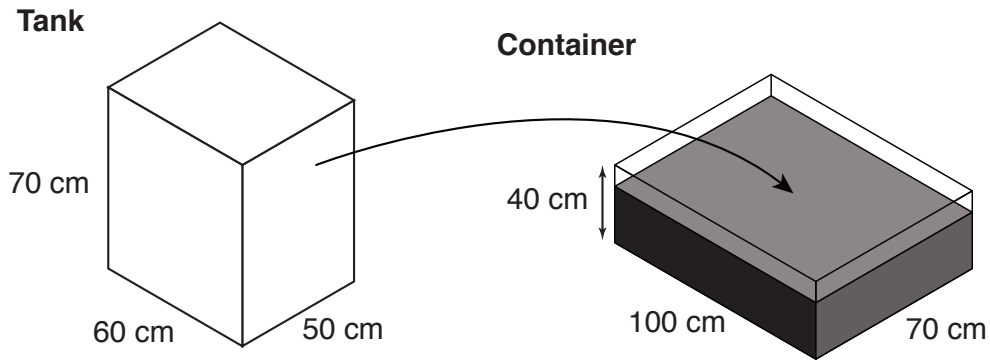
- 3 The oil from the tank is put into the container.  
Draw a sketch to show the information.



# What is problem solving?



\*



- 4 What information is needed to work out the height of the oil in the container?  
Write a question about the tank.  
Write a question about the container.  
Answer your questions.

**Question about the tank:** \_\_\_\_\_

**Answer:** \_\_\_\_\_

**Question about the container:** \_\_\_\_\_

**Answer:** \_\_\_\_\_

- 5 Work out the height of the oil in the container.

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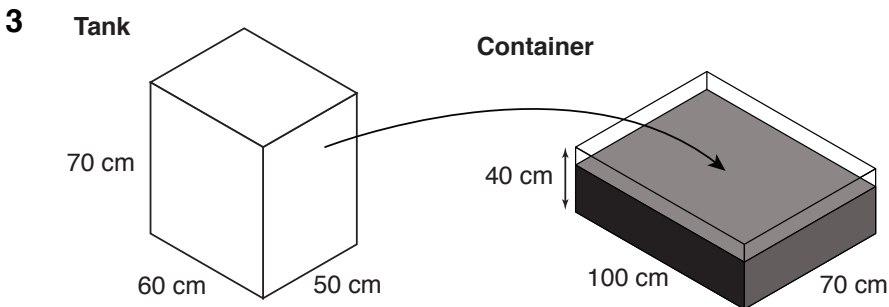
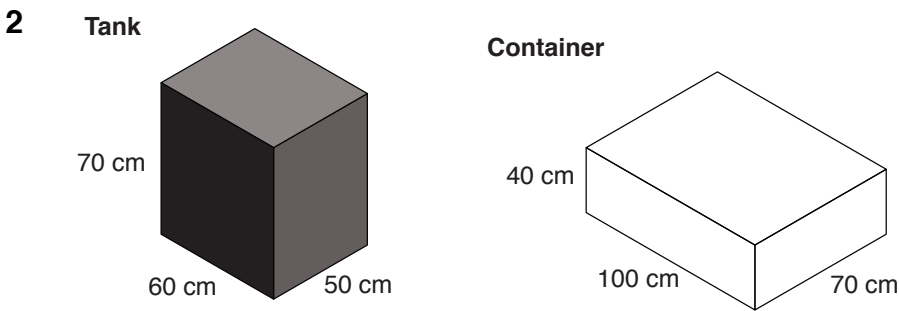
Answer \_\_\_\_\_

# What is problem solving? Answers



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- 1 Possible answers include:  
What is the volume?  
What is the area of the base?  
What is the surface area?  
Draw an accurate net.  
Make an isometric drawing.



- 4 What is the volume of oil in the tank?  
 $70 \times 60 \times 50 = 210\,000 \text{ cm}^3$   
What is the area of the base of the container?  
 $100 \times 70 = 7\,000 \text{ cm}^2$
- 5 Height of oil =  $210\,000 \div 7\,000 = 30 \text{ cm}$