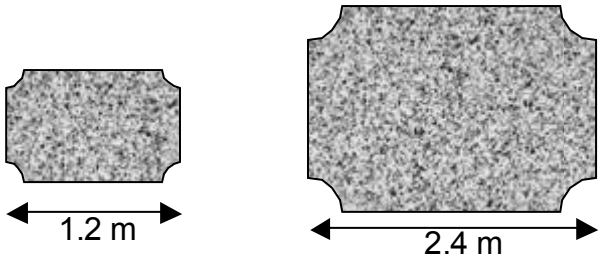
Similar Areas and Volumes

1. Two kitchen worktops are similar in shape.
   The area of the smaller worktops is 6.8 m^2.

   Calculate the area of the larger worktop.

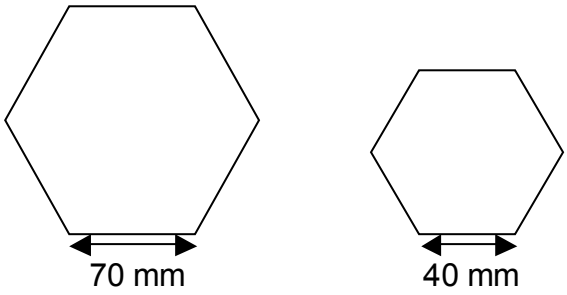


2. A photograph and its enlargement are similar in shape.
   The smaller photograph has an area of 56 cm^2 .

   Calculate the area of the larger photograph.

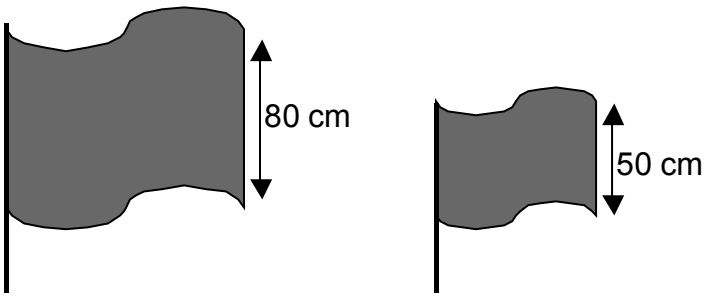
3. Two regular hexagons are mathematically similar in shape.
   The larger hexagon has an area of 7350 mm^2.

   Find the area of the smaller hexagon.



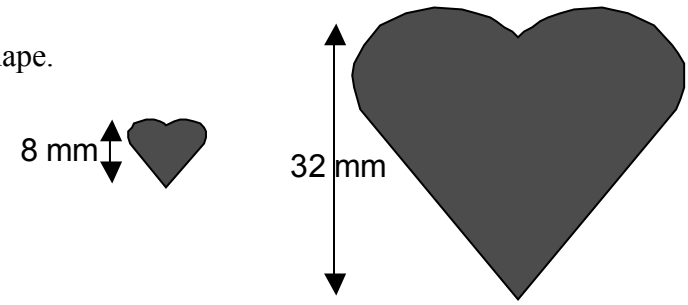
4. Two flags are mathematically similar.
   The larger flag has an area of 7680cm^2.

   Find the area of the smaller flag.



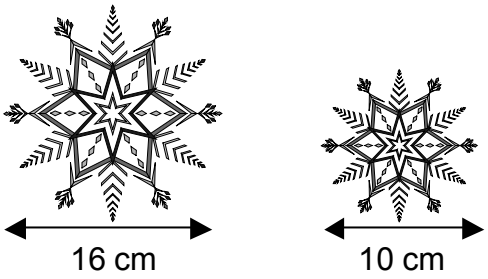
5. Two heart shaped symbols are similar in shape.
   The smaller shape has an area of 25 mm^2.

   Calculate the area of the larger shape.



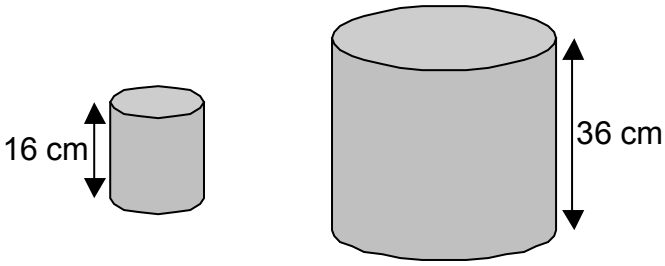
6. Two Christmas decorations are mathematically similar similar in shape.
The larger decoration has an area of 128 cm^2.

Calculate the area of the smaller decoration.



7. Two cylinders are mathematically similar.
The smaller cylinder is made from 800 cm^2 of aluminium.

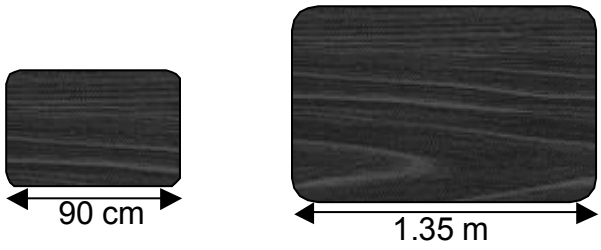
What area of aluminium is needed to make the larger cylinder.



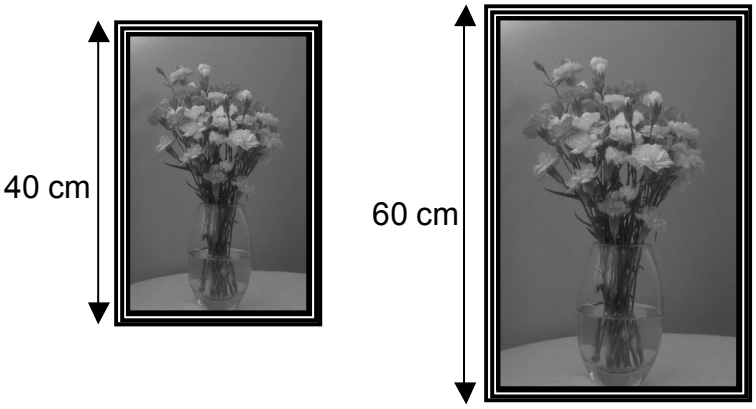
8. The top of a coffee table and the top of a dining table are similar in shape.

The dining table is 1.35 metres long and has an area of 0.9 m^2.

Calculate the area of the coffee table.

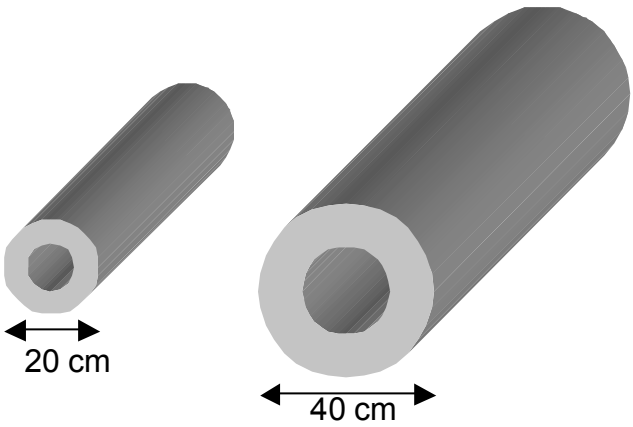


9. Two picture frames are mathematically similar in shape.
The cost of the frames depends on their area.
The smaller frame costs £4.60.
Find the cost of the larger frame.



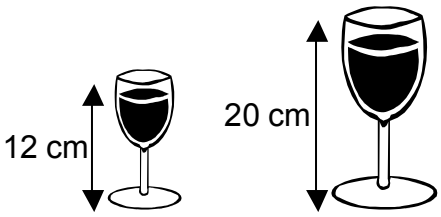
10. Two metal pipes are similar in shape.
The smaller pipe has a volume of 8000 cm^3.

Find the volume of the larger pipe.



11. The wine glasses shown are similar in shape.
The smaller glass can hold 135 ml of wine.

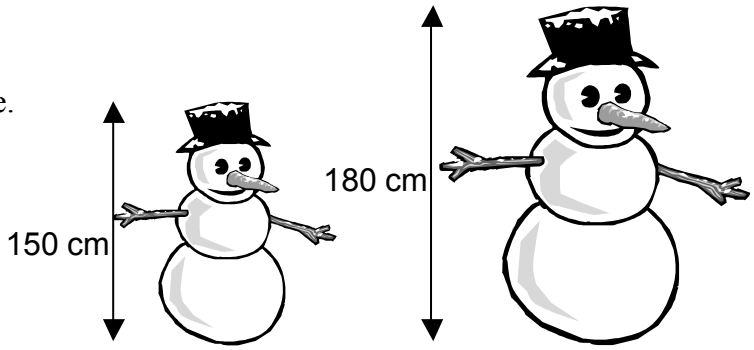
How much wine can the larger glass hold?



12. Michael and Amanda both build snowmen.
The snowmen they build are similar in shape.

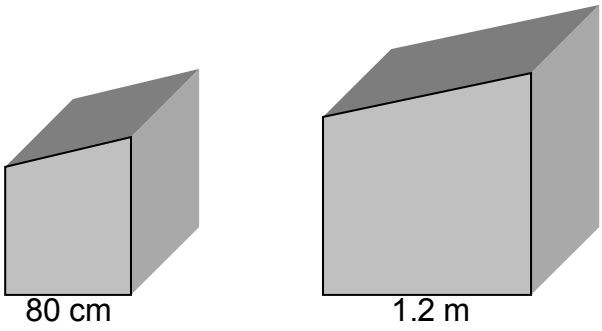
The volume of snow in Michael's snowman is 30 000 cm^3. His snowman is 150 cm tall.

Calculate the volume of snow in Amanda's snowman.



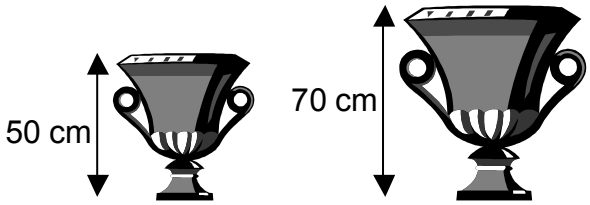
13. Two storage bins are similar in shape.
The larger bin has a volume of 1.8 m^3.

Calculate the volume of the smaller bin.



14. Two porcelain vases are similar in shape.
The volume of the smaller vase is 1200 cm^3.

Calculate the volume of the larger vase.

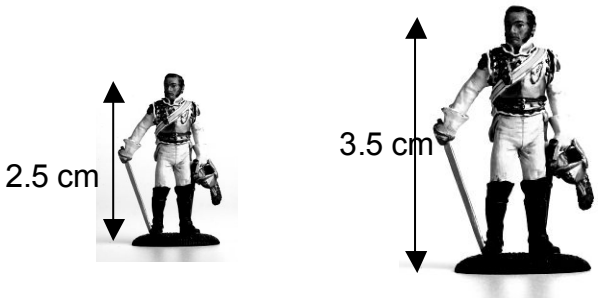


15. The pitchers shown opposite are similar.
The larger pitcher can hold 864 ml of liquid.

How much liquid can the smaller pitcher hold?

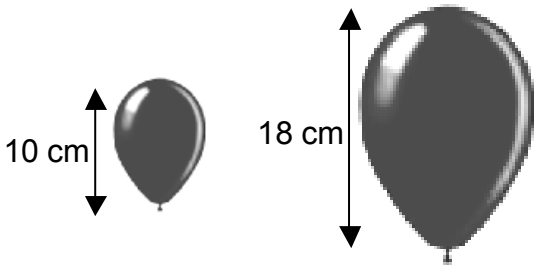
16. Die-cast metal figures come in different sizes, which are mathematically similar in shape. The cost of each figure depends on the volume of metal used to make the figure.

    In the diagram opposite, the smaller figure costs £1.25.
    Calculate the cost of the larger figure.



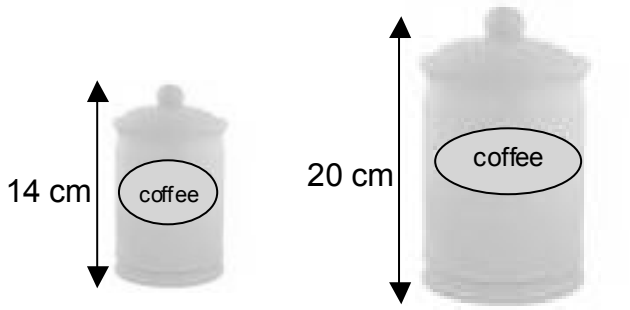
17. The balloons shown opposite are similar in shape. The larger balloon has a volume of 2187 cm^3.

    Calculate the volume of the smaller balloon.



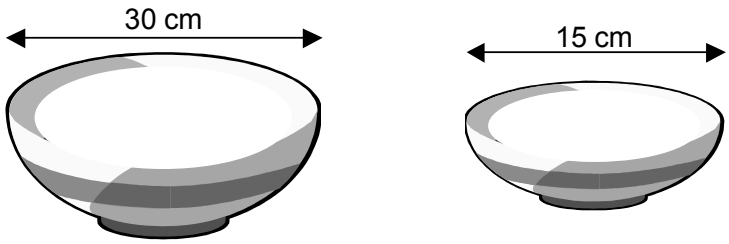
18. A company sell coffee storage jars in different sizes although each jar is mathematically similar in shape.
    The larger jar has a volume of 4000 cm^3.

    Find the volume of the smaller jar.



19. The diagram opposite shows a pair of similar fruit bowls.
    The smaller bowl has a volume of 1400 cm^3.

    Find the volume of the larger bowl.



20. The diagram shows two suitcases which are mathematically similar in shape.
    The cost of the suitcases depends on the volume of items the suitcase can hold.

    The larger suitcase costs £25.60, find the cost of the smaller suitcase.