

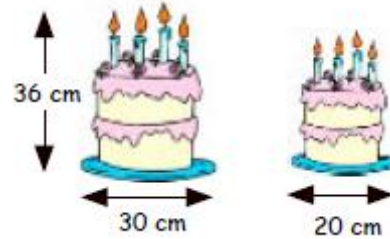
National 5 Homework : 1 year course

Similar Shapes

1. A birthday cake is baked in two sizes, both similar.

The large cake has a 30cm base and is 36cm in height.

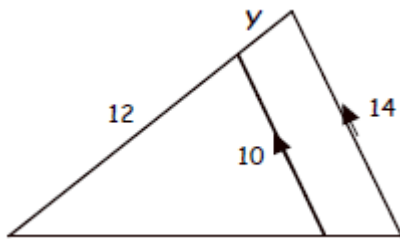
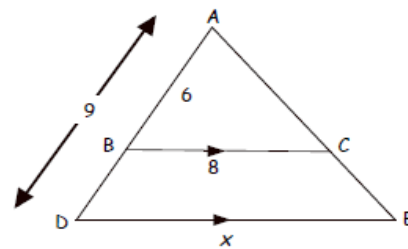
Calculate the height of the smaller cake which has a 20cm base.



2. In the triangle shown, BC is parallel to DE.

Triangle ABC is similar to triangle ADE.

Calculate the value of x .

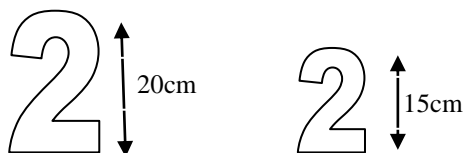


3. In the triangle shown on the left, calculate the length of y .

4. The two “number 2’s” are similar.

The large two has a surface area of 80 squared centimetres and is 20cm tall.

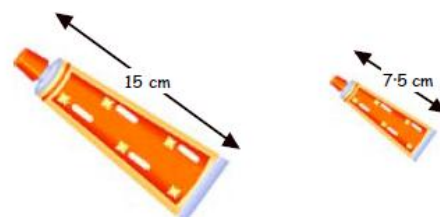
If the small two is 15cm tall what will the surface area be?



5. The diagram shows two tubes of toothpaste.

The two tubes are mathematically similar.

The length of the big toothpaste is 15cm and the length of the smaller one is 7.5cm.



If the big tube has a volume of 150ml what will the volume of the small tube be?