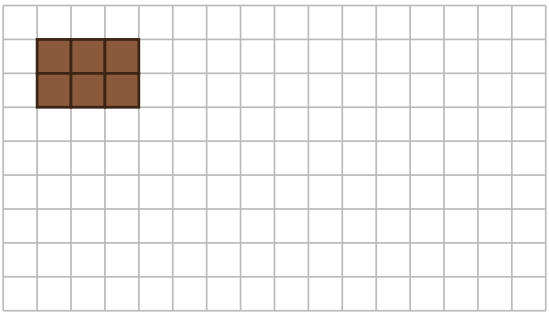
Area and volume scale factors *lesson handout*

Hook

A bar of chocolate is 3 squares long and 2 squares wide.
A giant bar is twice as long and twice as wide. Draw it.
How many squares does it have?



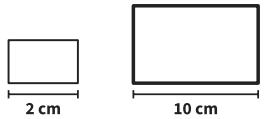
Show why

Draw a square with lengths × 2, then × 3. Draw a 1 by 2 rectangle with lengths × 3. Count the squares in each.



Part 1 We do

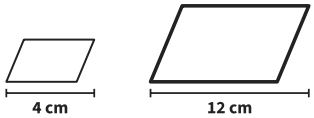
These two rectangles are similar. The small one has an area of 3 cm^2. Find the area of the large one.



Not drawn accurately

Part 1 You do

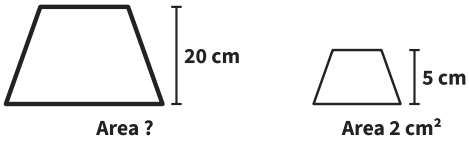
These two parallelograms are similar. The small one has an area of 5 cm^2. Find the area of the large one.



Not drawn accurately

Part 1 You do

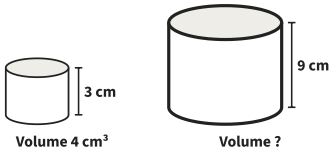
These two trapeziums are similar. The small one has an area of 2 cm^2. Find the area of the large one.



Not drawn accurately

Part 2 We do

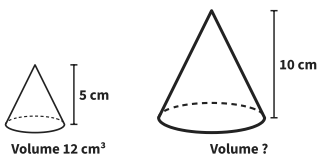
These two cylinders are similar. The small one has a volume of 4 cm^3. Find the volume of the large one.



Not drawn accurately

Part 2 You do

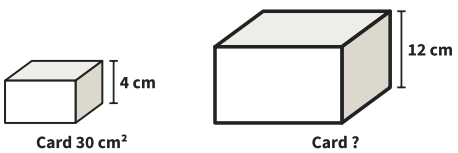
These two cones are similar. The small one has a volume of 12 cm^3. Find the volume of the large one.



Not drawn accurately

Part 2 You do

These two boxes are similar. The small box is made from 30 cm^2 of card. How much card makes the large box?



Not drawn accurately