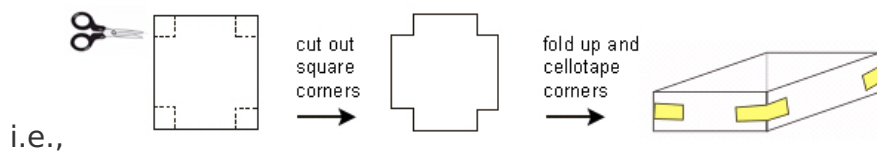


Constructing different shaped boxes

This task requires is about making boxes from grid paper and calculating the volumes.

For this task you are going to construct 3 different sized boxes (without lids) and calculate their volumes.

- a) Make three boxes, of different sizes, each from a piece of 12 cm × 12 cm square grid paper you have been given.
Label the boxes A, B, and C. Each box can only be made by cutting out a square or squares from each corner of your grid paper (an example is shown in the diagram below), and then folding up and cellotaping each side.



- b) Calculate the volume of each open box you have made.

Volume of Box A = _____

Volume of Box B = _____

Volume of Box C = _____

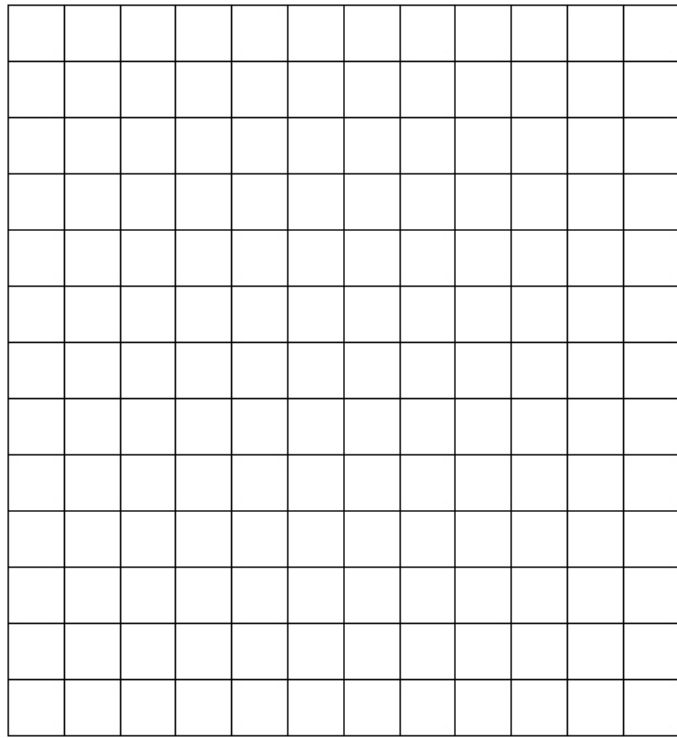
- c) If you were now asked to make a box without a lid from a piece of 8 cm × 8 cm square grid paper (by cutting out squares from each corner), what dimensions would you construct to give it:

i) maximum volume? _____

ii) minimum volume? _____

Square Grid Template: 12 cm × 12 cm





Published on <https://newzealandcurriculum.tahurangi.education.govt.nz>