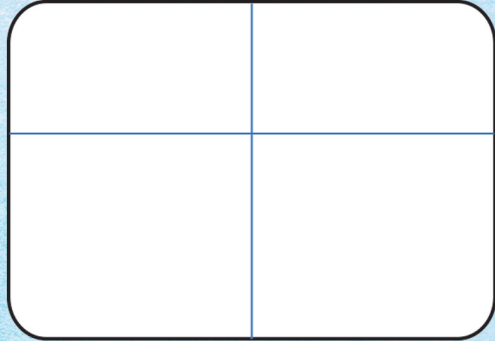
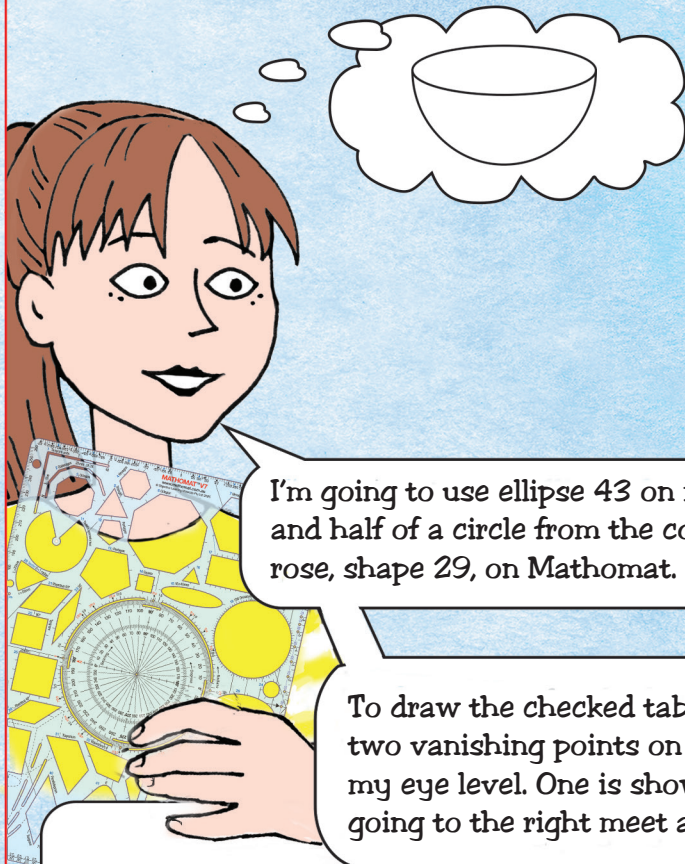


Perspective dilemma

Allow time for mental imagery to develop.

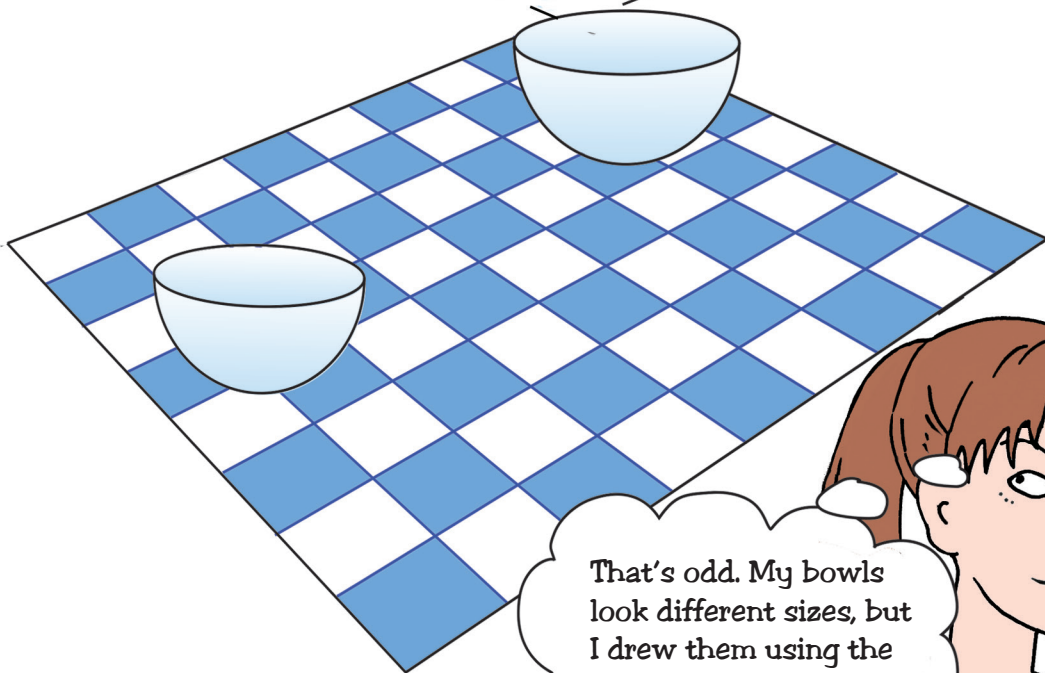
Emma is going to draw bowls on a table.



Draw a bowl in the box above using Emma's suggestion from Mathomat.

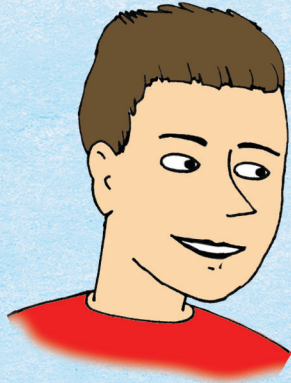
I'm going to use ellipse 43 on my V7 and half of a circle from the compass rose, shape 29, on Mathomat.

To draw the checked table cloth I have found two vanishing points on the horizon, which is my eye level. One is shown here. All the lines going to the right meet at it.



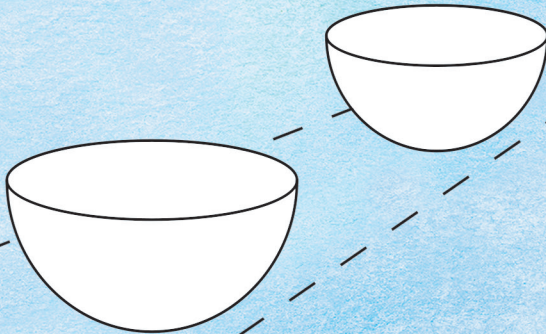
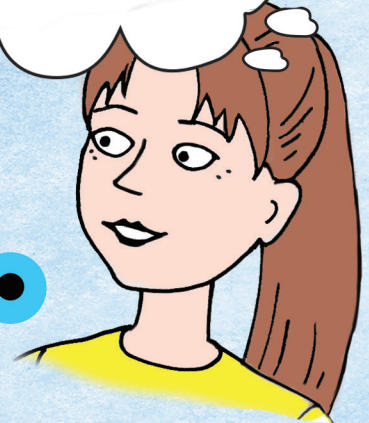
That's odd. My bowls look different sizes, but I drew them using the same ellipse.

Mattie to the rescue!



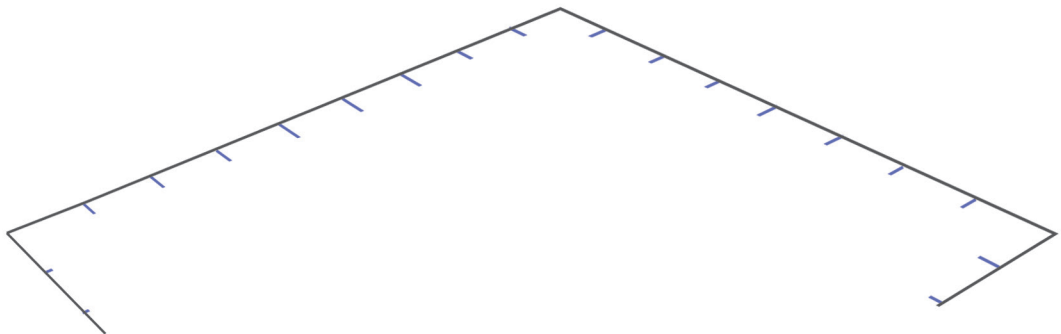
The two physical bowls drawn here are identical, Emma.

Does that mean one of the physical bowls that I draw has to be made bigger?



The problem is that, although the two physical bowls that Emma has drawn are the same size, the mental bowls Emma sees in her 'mind's eye' are perceived to be different sizes. This is because of the way that she conceives the background.

Find the two vanishing points to complete this table: one point will be off to the right so attach a sheet of paper temporarily to this page and draw the **horizon** in first with the ruler (it will go through the vanishing point shown).



Now draw in the bowls so that the **perception** is that they are the same size (work in pencil first).

Look at your Mathomat. Which ellipse and circle will make a larger bowl?



You can print this out from **MAC** and find more about optical illusions in **MAC** (activity 11.5)