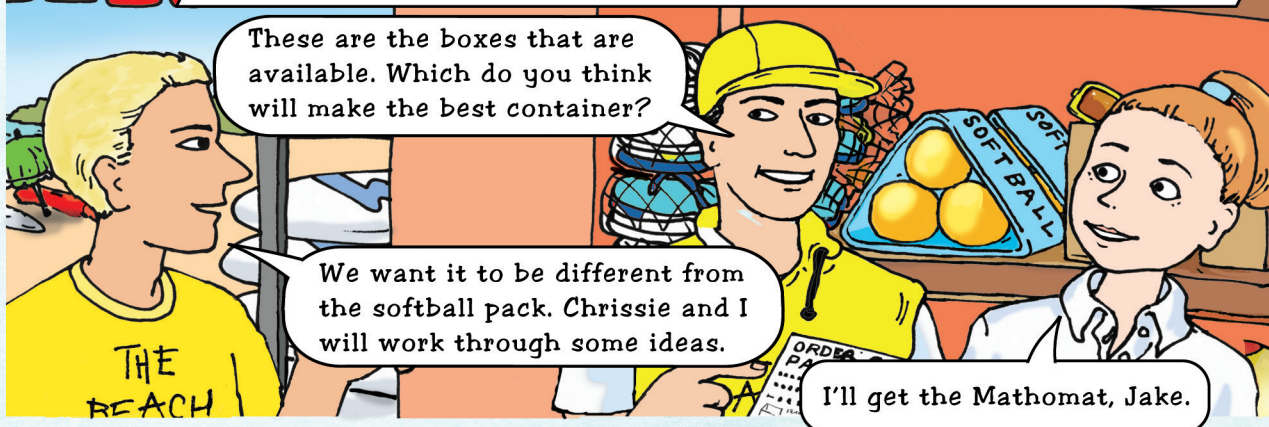
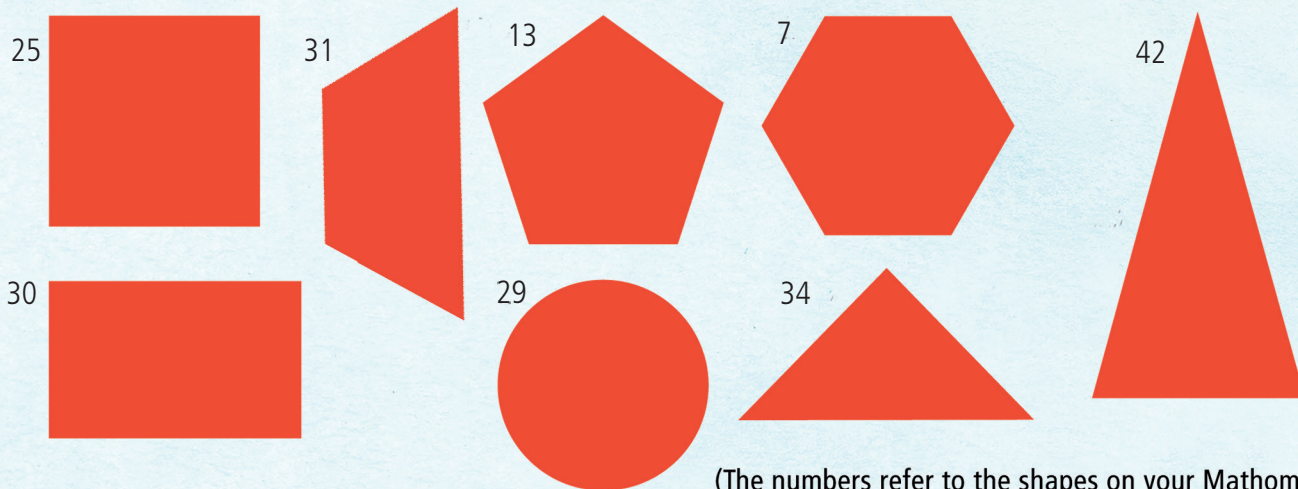


# Packing tennis balls

The owner of the beach shop buys softballs in bulk which he then re-packages in smaller quantities. He wants to do the same with tennis balls.



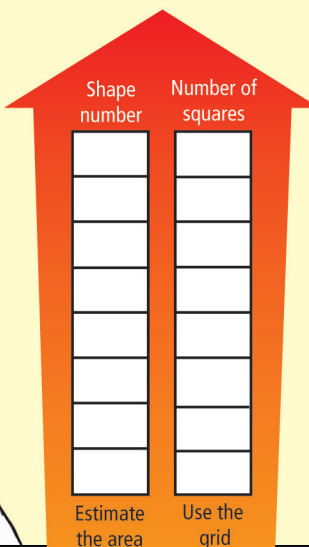
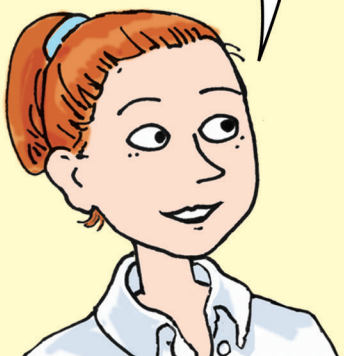
This is a selection of box bases that Jake and Chrissie could choose from:



## Estimate the area

Estimate the areas of the shapes. Rank them, largest at the top and smallest at the bottom. Use the grid at the top of the next page to check if you got them right.

Jake, which do you think has the largest area?

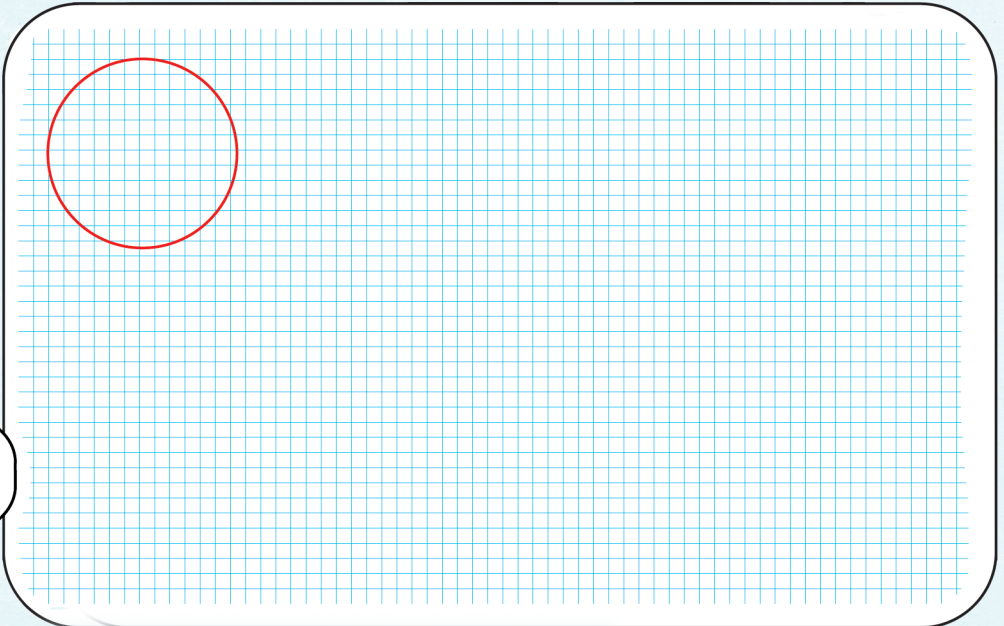


Just by looking I would say...





The circle (shape 29) covers 121 squares.



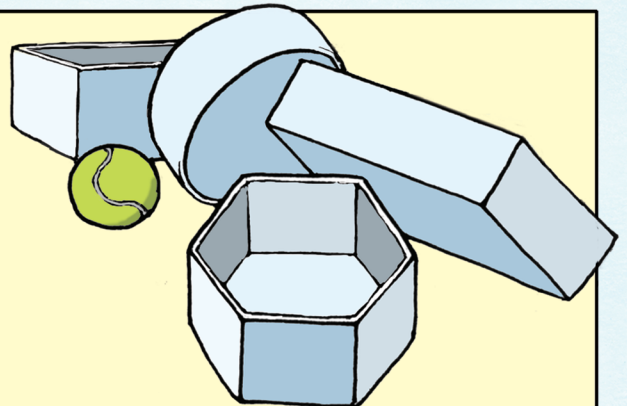
## Approximate area

Draw the shapes on the  $2 \times 2$  mm grid.

Count all the whole squares, and even out all half covered squares.

## Pack them in

Jake and Chrissie start by finding the box that will hold the most balls. Test this out for yourself by using shape 24 to represent the tennis ball.



Which box holds the most?

### The best pack

Here are some other things that Jake and Chrissie should think about before deciding on the pack.

What quantity do people like to buy tennis balls in?  
Twos, fives, sixes, ...?

Packs will need to be stored. Which shape will be best for this?

Which shape would be the most eye-catching?

Which shape would you choose taking into consideration these questions?

