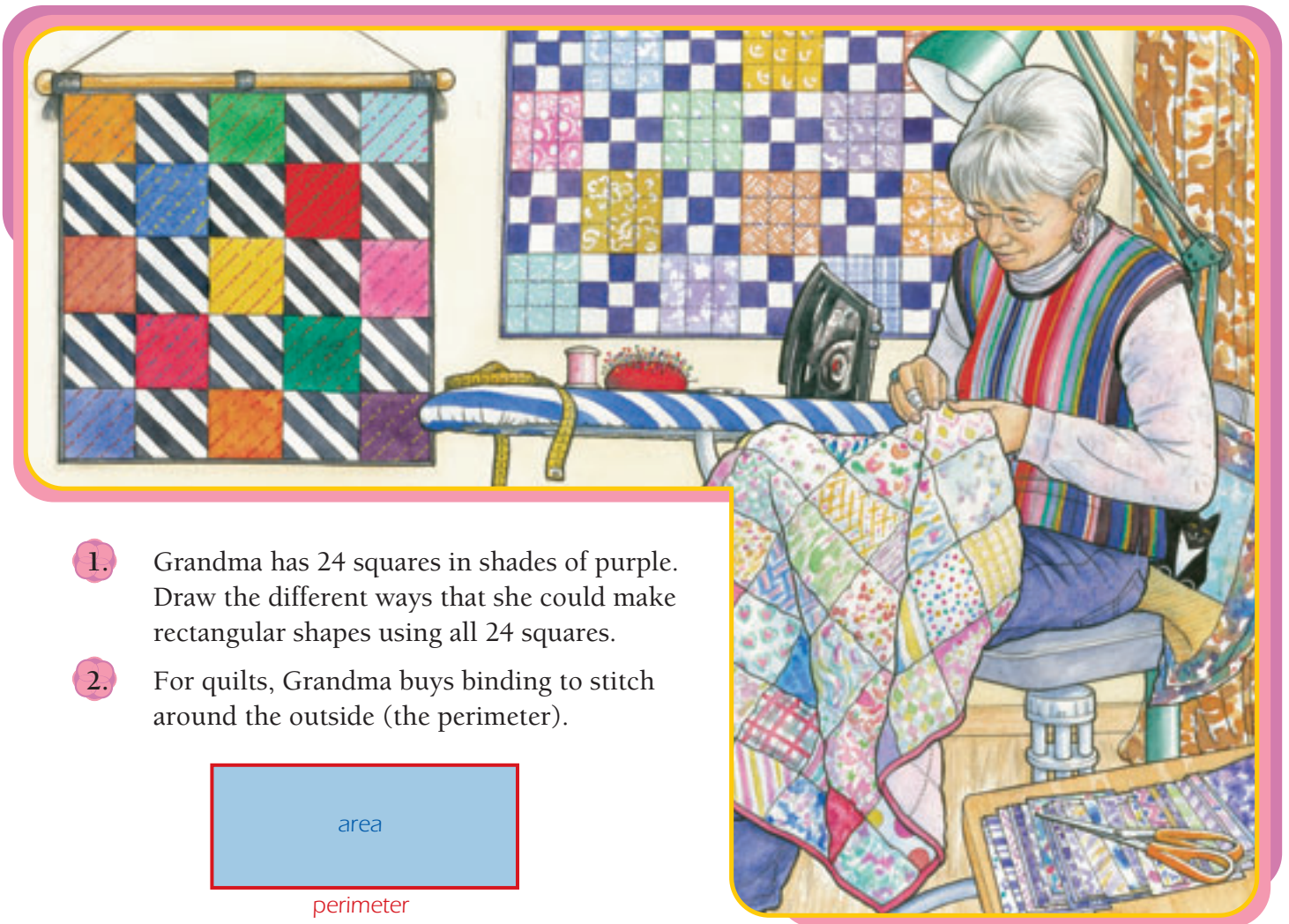


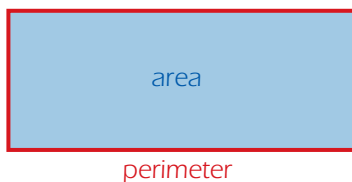
# Square Skills

## Activity

Sam's grandmother makes patchwork quilts and wall hangings. First, she cuts up material so that the finished squares will be 10 centimetres by 10 centimetres. Then, she stitches squares together to make quilts and wall hangings of different shapes and sizes.



1. Grandma has 24 squares in shades of purple. Draw the different ways that she could make rectangular shapes using all 24 squares.
2. For quilts, Grandma buys binding to stitch around the outside (the perimeter).



- a. What total length of binding would Grandma need for each of the rectangles you found in question 1?
- b. What do you notice about the areas and the perimeters of these rectangles?
3. Grandma has cut out 36 squares with flower patterns on them.
  - a. What different rectangular shapes could she make using all 36 squares?
  - b.
    - i. Which rectangular shape needs the least binding?
    - ii. Which rectangular shape needs the most binding?