

Classy Courtyards

You need: square grid paper, felt pens

ACTIVITY ONE

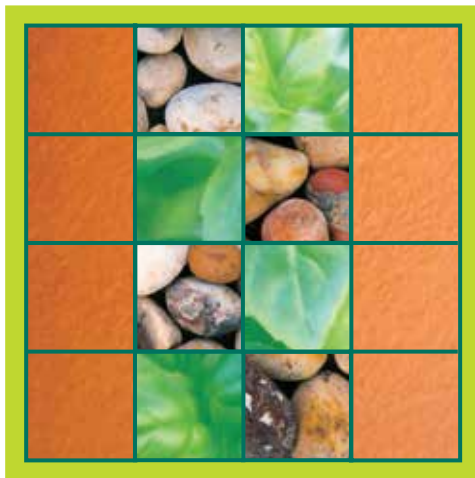
Francie is designing a courtyard for the area in front of her house. She wants to have some paving tiles, some pebbles, and some garden for herbs.

1. Her first design looks like this.



- What fraction of her courtyard would consist of orange paving tiles?
- What fraction of her courtyard would be in pebbles?
- What fraction of her courtyard would be planted in herbs?

2. Her second design looks like this.



- What fraction of this courtyard has orange paving tiles?
- What fraction has herbs?
- What can you say about the pebbled area of the courtyards in questions 1 and 2?

3. Her third design looks like this.



- What fraction of this courtyard has orange paving tiles?
- Describe the fractions of pebbles and herbs in this courtyard.
- What can you say about the tiled area of the courtyards in questions 1, 2, and 3?





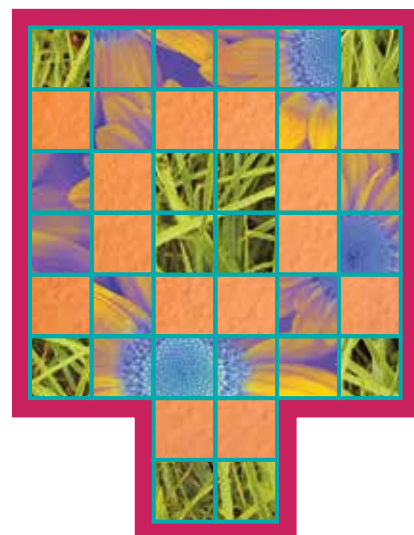
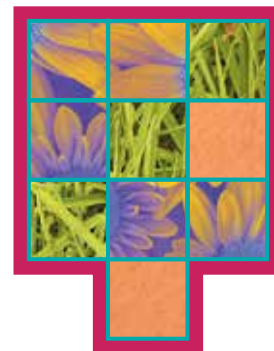
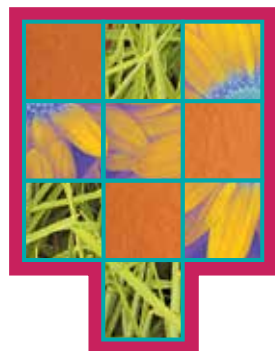
4. Her friend Christine made this design for her.
 - a. What fraction of this design do the orange paving tiles cover?
 - b. What fraction is in pebbles?
 - c. What fraction is in herbs?
5. Compare the fractions for the herbs in each of the four designs and explain the pattern you have found.



ACTIVITY TWO

Next door, David decides to try a geometric design in his courtyard. He wants concrete pavers, grass, and flowers.

1. What fraction of David's courtyard design is in grass?
2. What fraction of this courtyard design is in flowers?



3. David has used smaller squares this time. How much of this design is grass?
4. Design a different courtyard for David so that he has six squares of concrete pavers, six squares of flowers, and six squares of grass. Make all the squares the same size.

