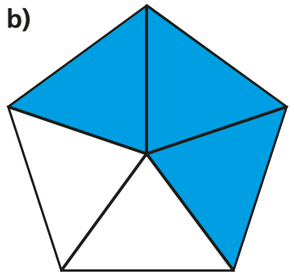
Represent any fraction as a diagram

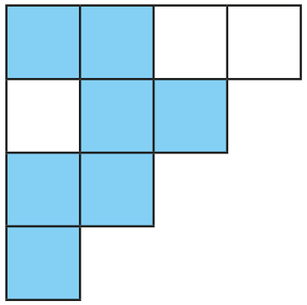
1 What fraction of the shapes is shaded?

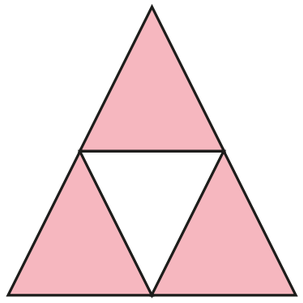
a)

b)

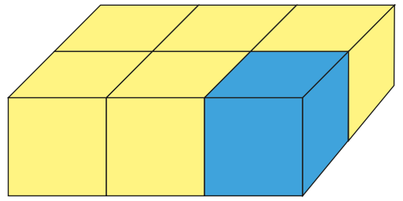


2 What fraction of the shapes are shaded?



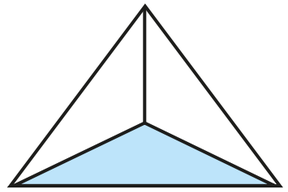


3

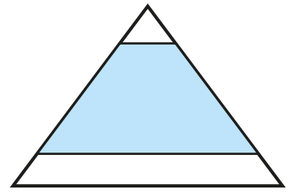


What fraction of the cubes are yellow?

4 One of these triangles has $\frac{1}{3}$ shaded?



A



B

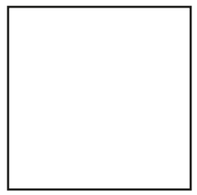
a) Which shape has $\frac{1}{3}$ shaded? _____

b) Explain why one shape has $\frac{1}{3}$ shaded and the other does not.

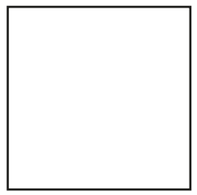
_____

_____

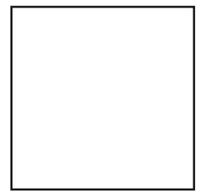
5 Shade the stated fractions of the squares.



$\frac{1}{2}$ shaded



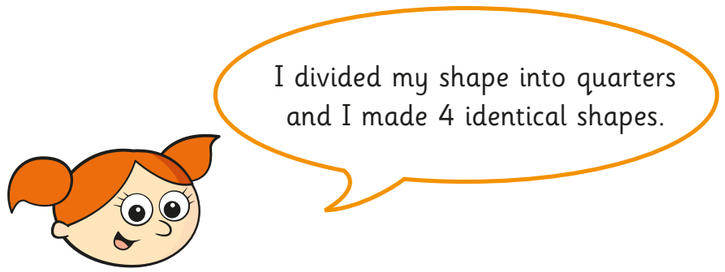
$\frac{1}{4}$ shaded



$\frac{1}{8}$ shaded

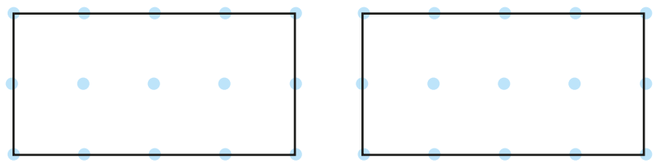
6 Alex and Dexter are dividing rectangles into quarters.

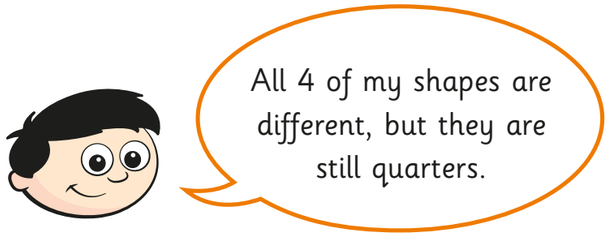
They can only join up dots.



a) How might Alex have divided her shape?

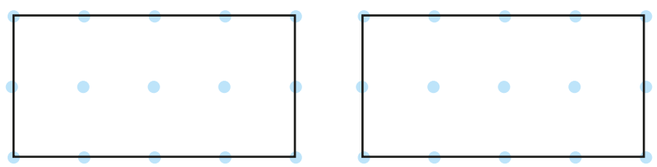
Show two different ways.





b) How might Dexter have divided his shape?

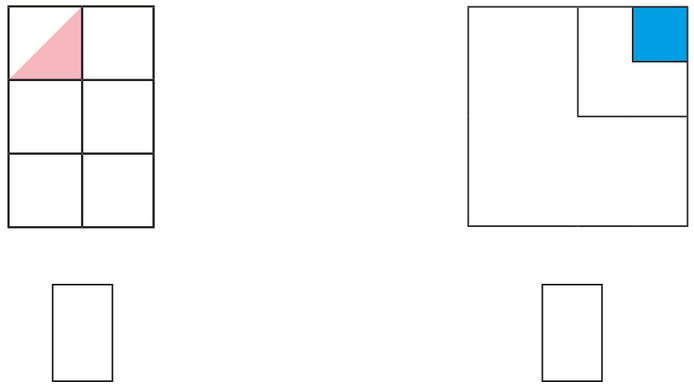
Show two different ways.



Compare answers with a partner.

Can you find more ways to divide the shapes?

7 **a)** What fraction of the shapes are shaded?

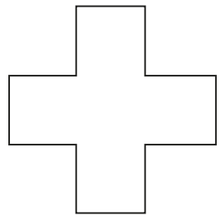


b) Did you have to make any assumptions?

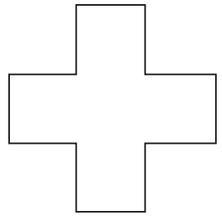
Discuss with a partner.

8 All the sides of this shape are the same length.

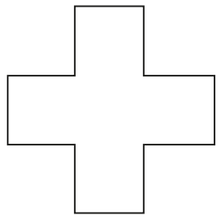
a) Divide the shape into fifths.



b) Shade $\frac{3}{4}$ of the shape.



c) Shade 10% of the shape.



d) Shade 0.375 of the shape.