

# Represent any fraction as a diagram

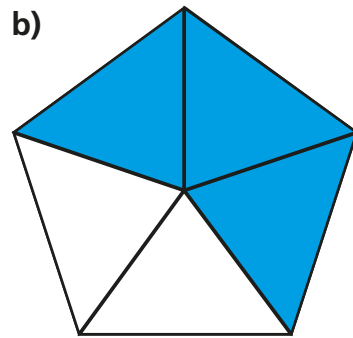
1 What fraction of the shapes is shaded?

a)



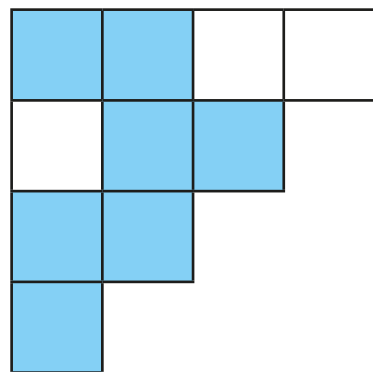
$\frac{2}{7}$

b)

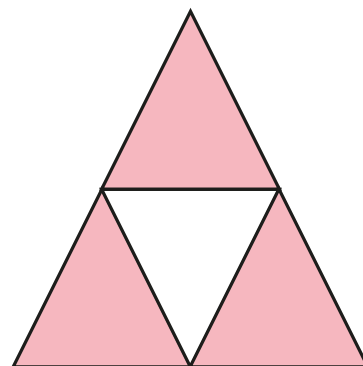


$\frac{3}{5}$

2 What fraction of the shapes are shaded?

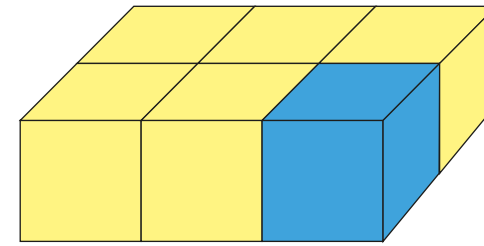


$\frac{7}{10}$



$\frac{3}{4}$

3

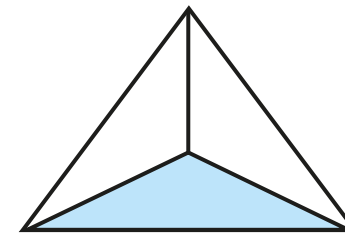


What fraction of the cubes are yellow?

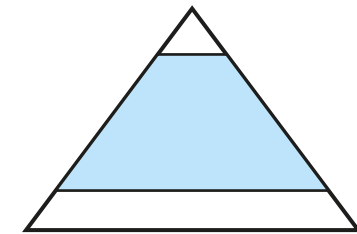
$\frac{5}{6}$

4

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



A



B

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

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

One is split into equal parts and one is not.

5

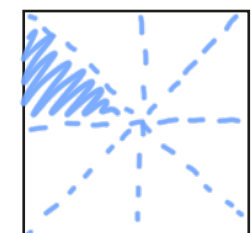
Shade the stated fractions of the squares. E.g.



$\frac{1}{2}$  shaded



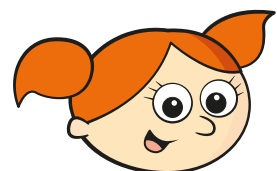
$\frac{1}{4}$  shaded



$\frac{1}{8}$  shaded

- 6 Alex and Dexter are dividing rectangles into quarters.

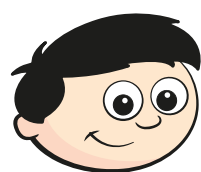
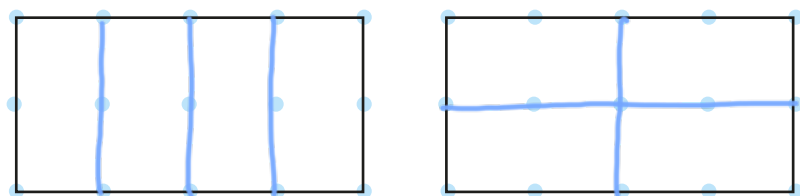
They can only join up dots.



I divided my shape into quarters and I made 4 identical shapes.

- a) How might Alex have divided her shape?

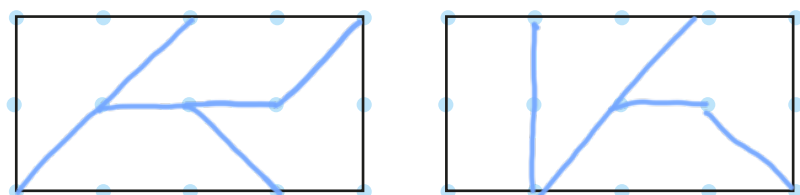
Show two different ways.



All 4 of my shapes are different, but they are still quarters.

- b) How might Dexter have divided his shape?

Show two different ways.

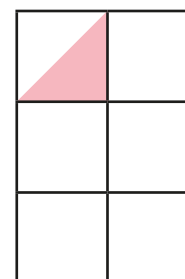


Compare answers with a partner.

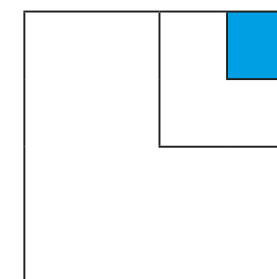
Can you find more ways to divide the shapes?



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



$$\frac{1}{12}$$



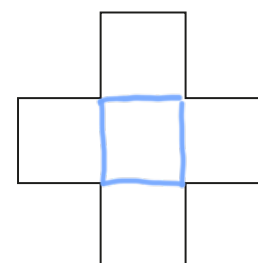
$$\frac{1}{16}$$

- b) Did you have to make any assumptions?

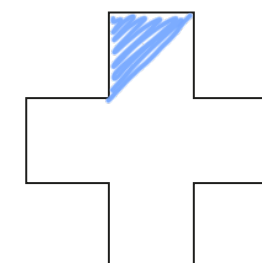
Discuss with a partner.

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

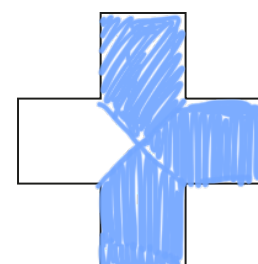
- a) Divide the shape into fifths.



- c) Shade 10% of the shape.



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



- d) Shade 0.375 of the shape.

