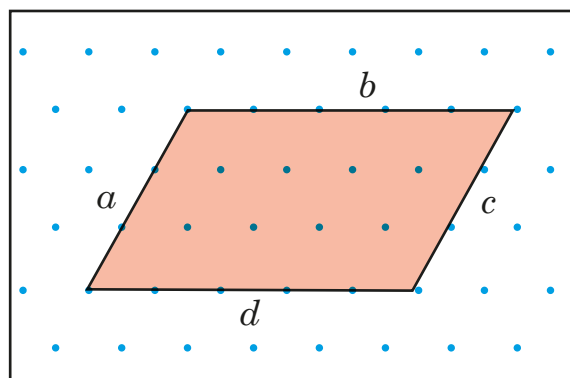


# Investigate the properties of special quadrilaterals

- 1 The diagram shows a parallelogram.



- a) What two things do you notice about sides  $a$  and  $c$ ?

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- b) What two things do you notice about sides  $b$  and  $d$ ?

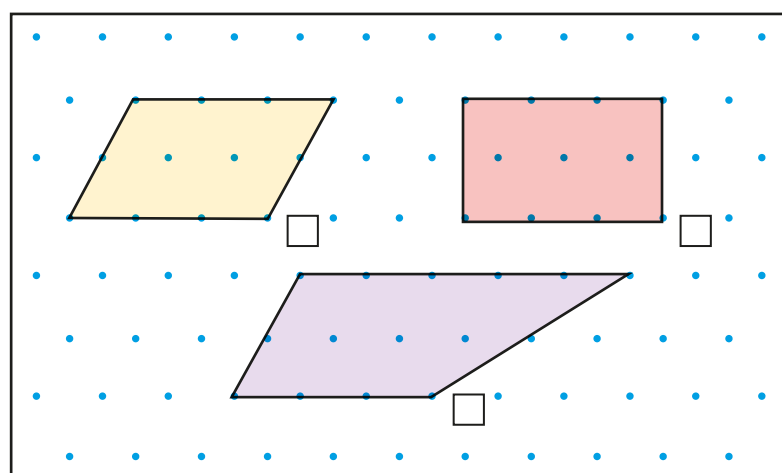
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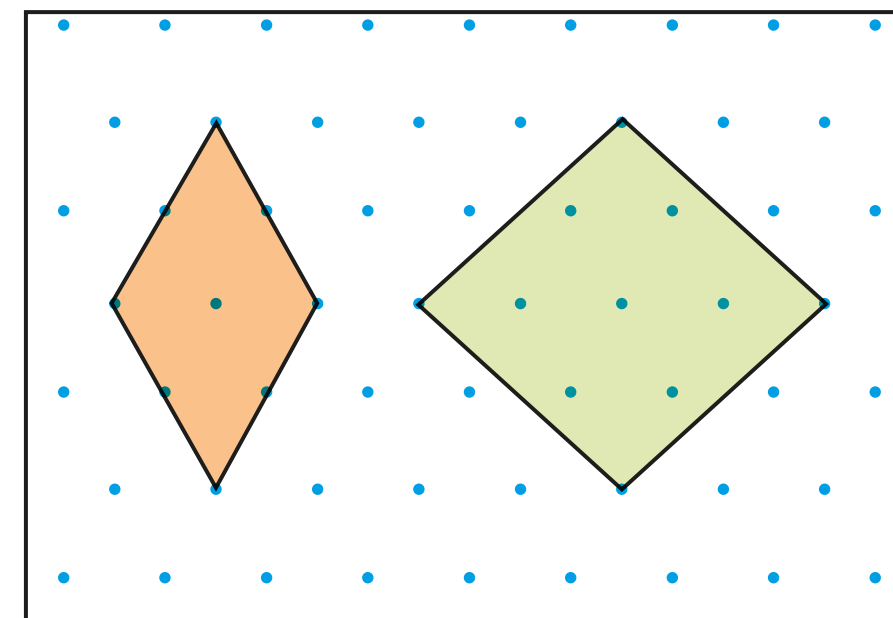
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- c) Which of these shapes are parallelograms?

Tick your answers.



- 2 Here are two rhombuses.



- a) What do you notice about the lengths of the sides in a rhombus?

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- b) Measure the angles in each rhombus and label the diagram.

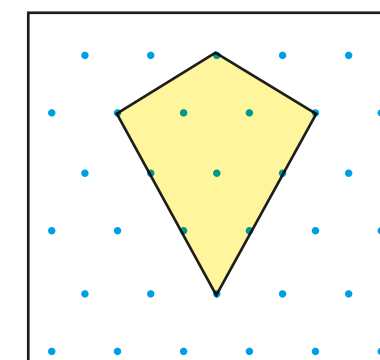
- c) What do you notice about the sizes of the angles in a rhombus?

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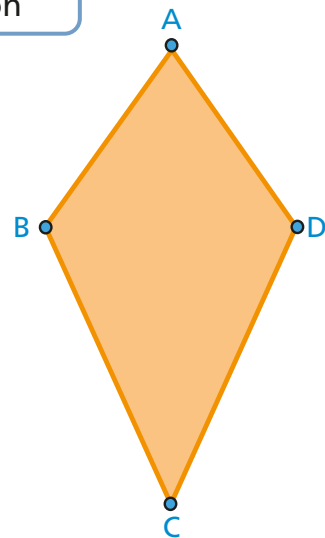
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- d) Explain why this shape is not a rhombus.

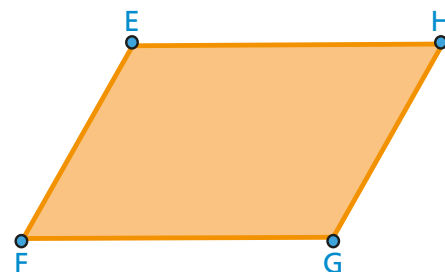


- 3 Ron and Rosie are using some geometric software to make kites. They make these shapes.

Ron



Rosie



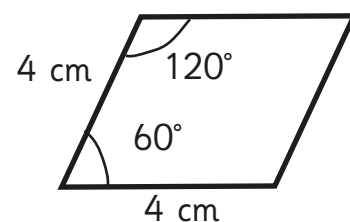
- a) Who has made a kite? \_\_\_\_\_  
b) Explain why one shape is a kite and the other is not.

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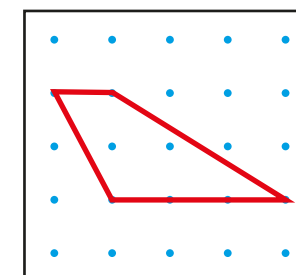
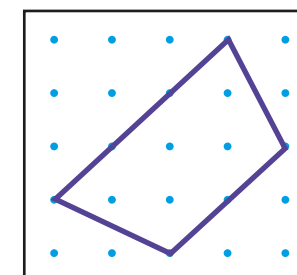
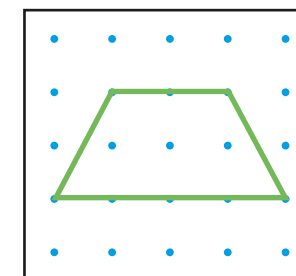
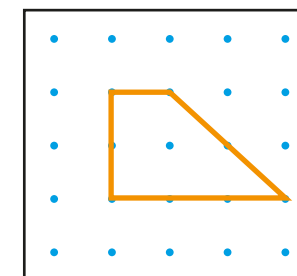
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- 4 Here is a sketch of rhombus. Construct the rhombus using a ruler and protractor.



- 5 Mr Simpson's Maths class are making trapeziums on geoboards. Here are four that they have made.

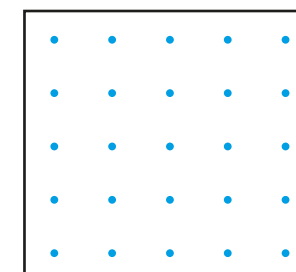
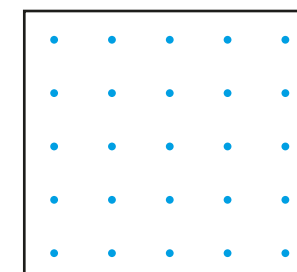
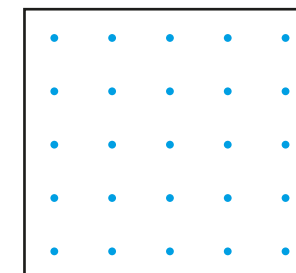
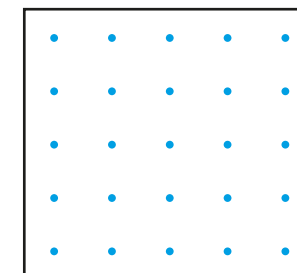


- a) What is a trapezium? Write a definition.

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- b) Make or draw four more trapeziums.



- c) Here are two types of trapeziums.

right trapezium

isosceles trapezium

Define the properties of each of these trapeziums.

