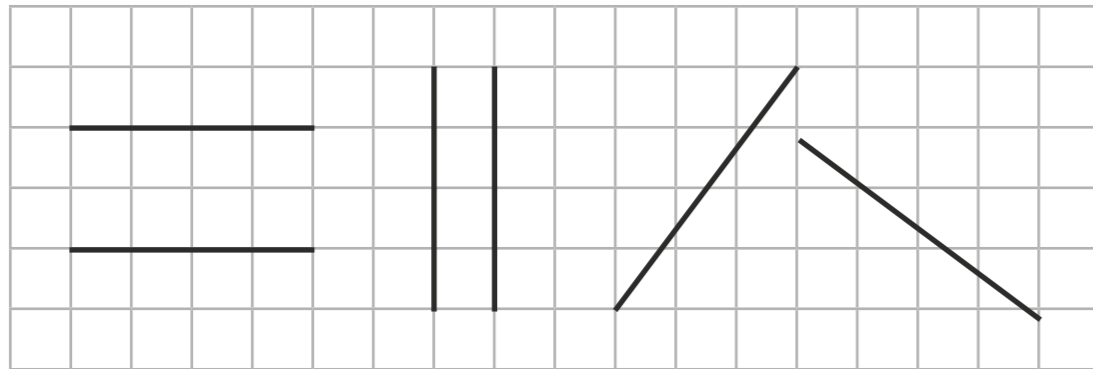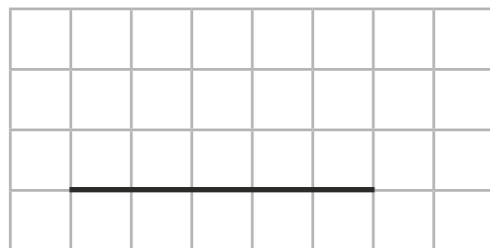White Rose Maths

1 Tick the pairs of lines that are not parallel.
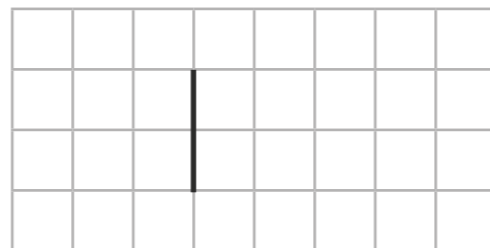

2 Here are two lines.
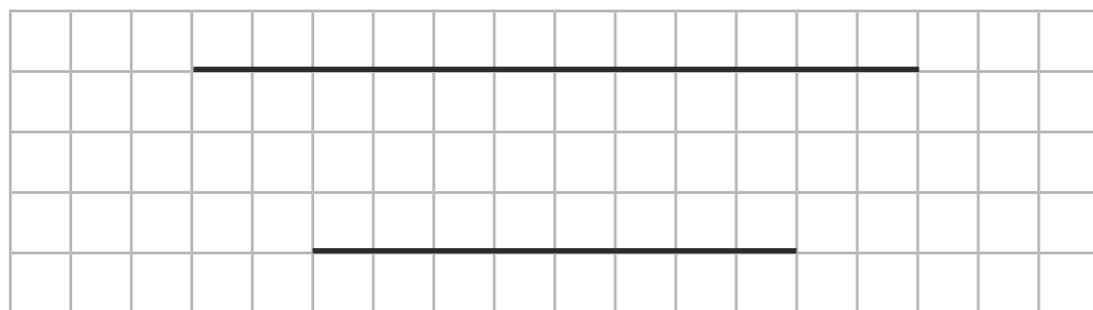
Draw a line that is parallel to each.

a)

b)

3 Amir says that the lines are not parallel because they are different lengths.
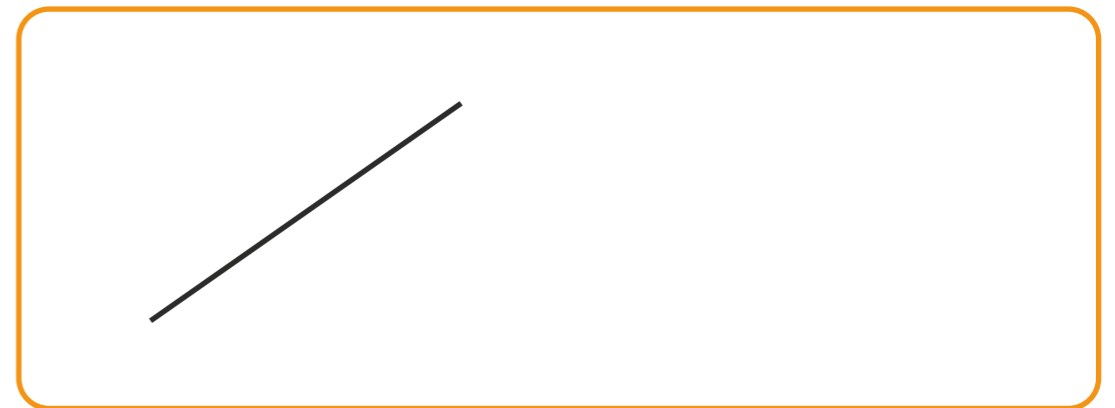

Is Amir correct? _____

Why?

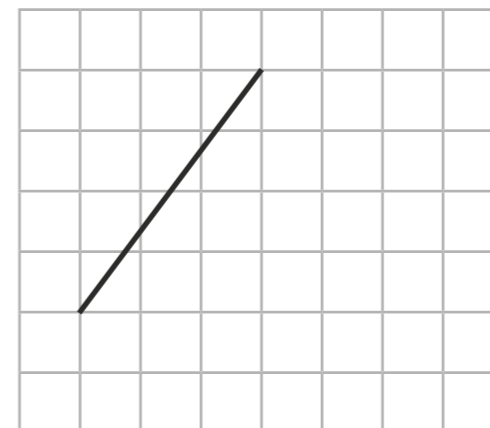**4** a) Here is a line. Draw a line that is **not** parallel to it.

b) Here is a line. Draw a line that is parallel to it.

5 Here are two lines.
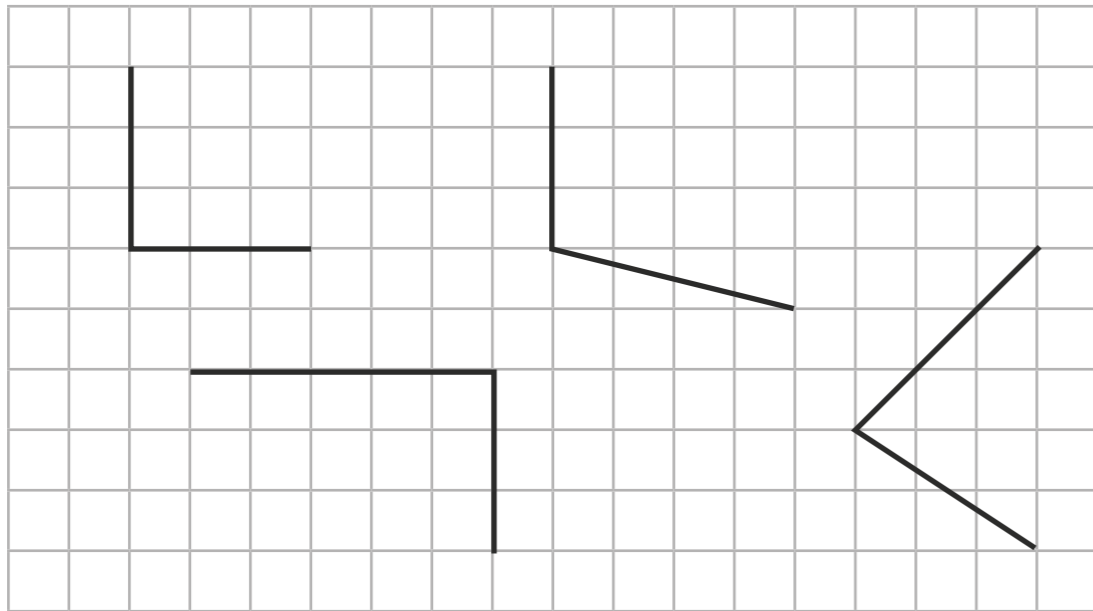
Draw a line that is parallel to each.

a)

b)

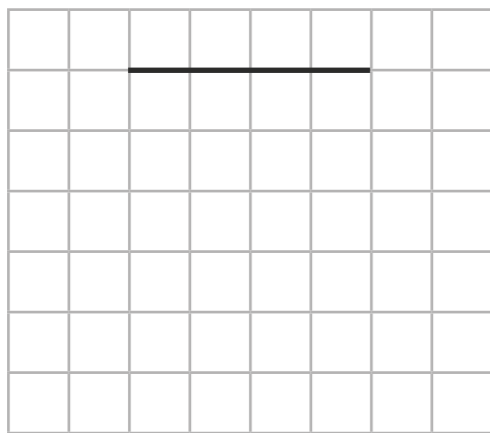Talk to a partner about how you did it.

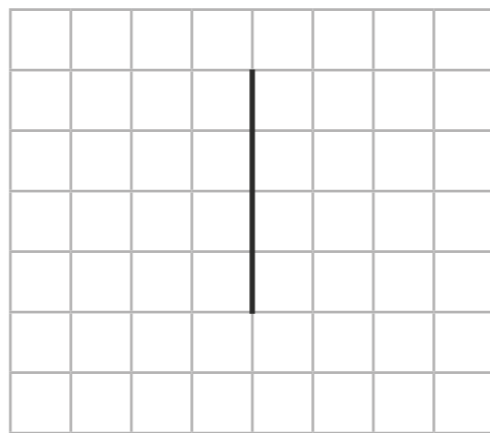© White Rose Maths 2020

6 Tick the perpendicular lines.

7 Here are two lines. Draw a line that is perpendicular to each.

a)

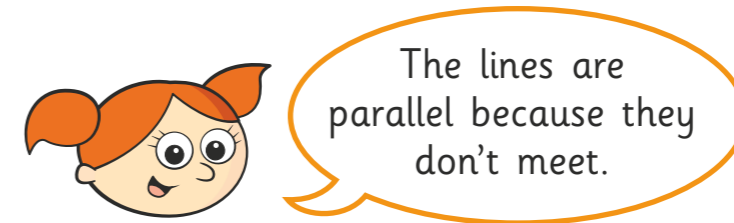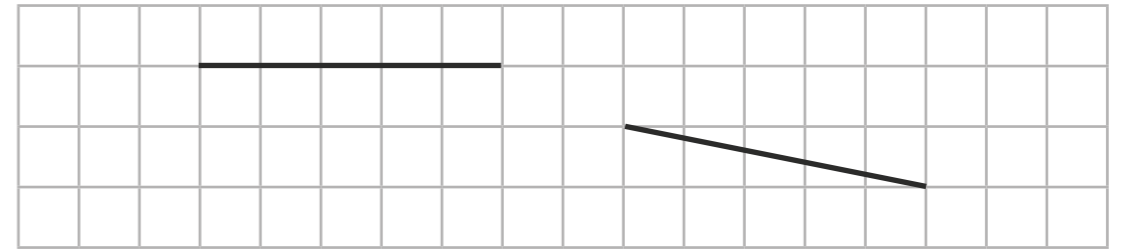b)

8 Alex has drawn some lines on grids.

a)

The lines are not perpendicular because they don't meet.

Do you agree with Alex? _____

b)

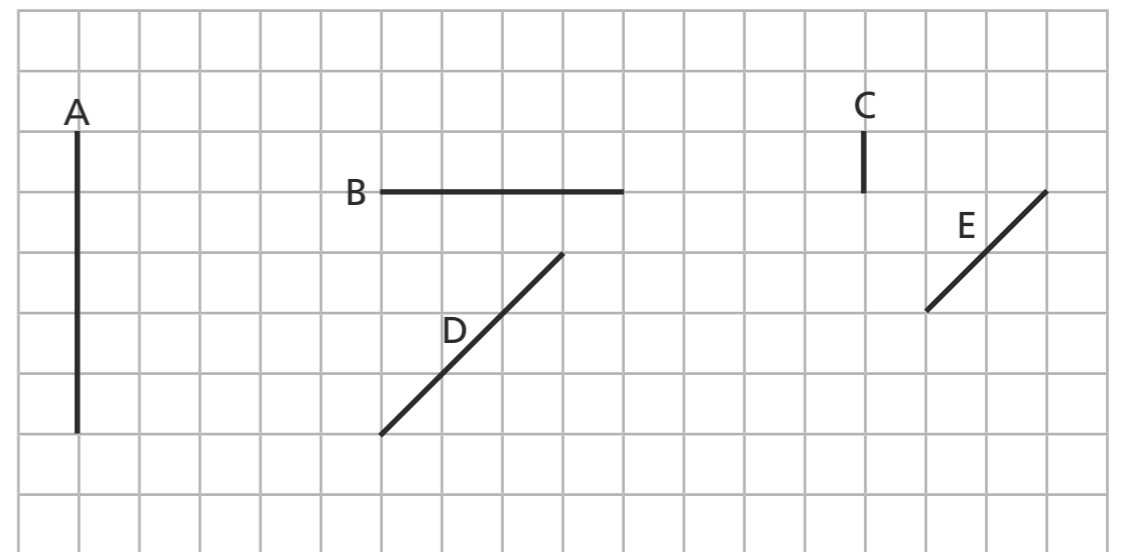The lines are parallel because they don't meet.
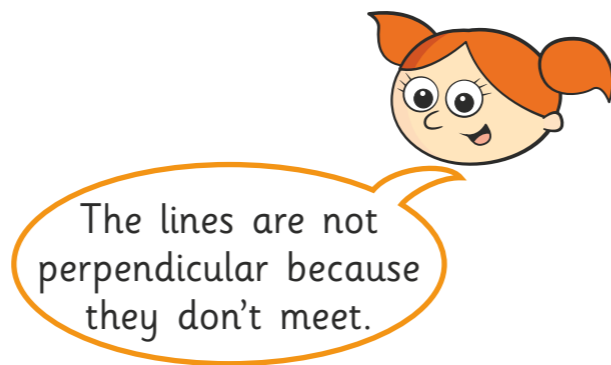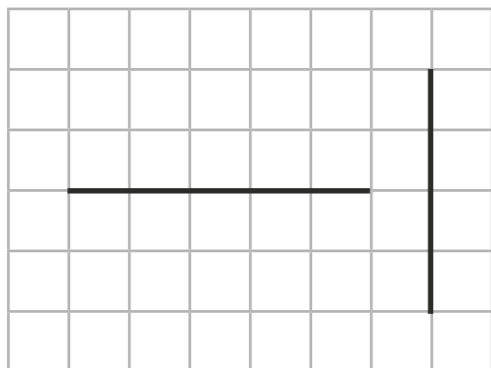
Do you agree with Alex? _____

Talk about your answers with a partner.

9 Five lines are drawn on the grid.
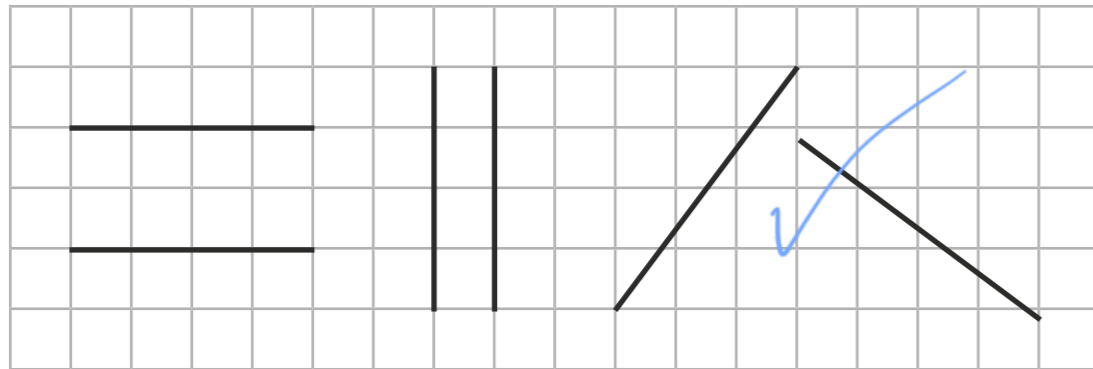
A   B   C   D   E

a) Which two pairs of lines are parallel?

_____

b) Which two pairs of lines are perpendicular?
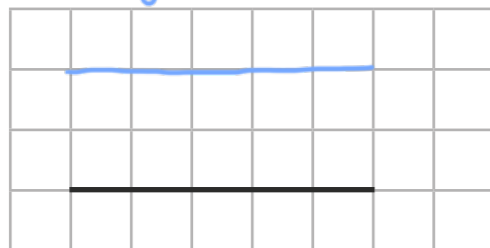
_____

Parallel and perpendicular

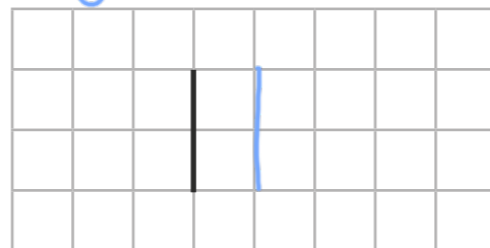**1** Tick the pairs of lines that are not parallel.

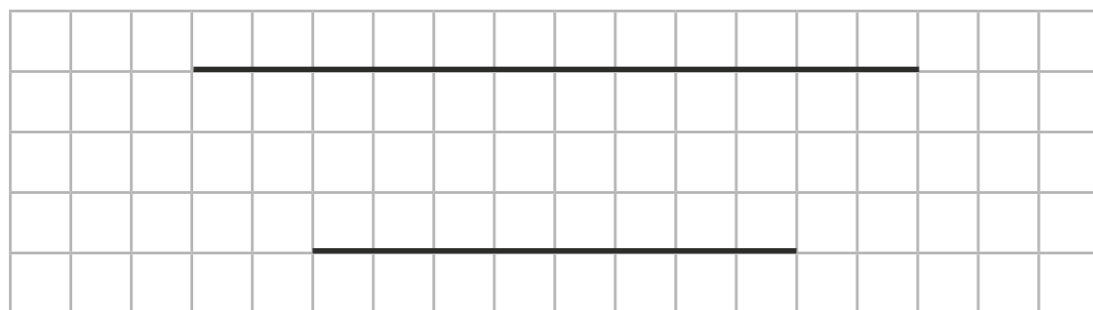**2** Here are two lines.

Draw a line that is parallel to each.
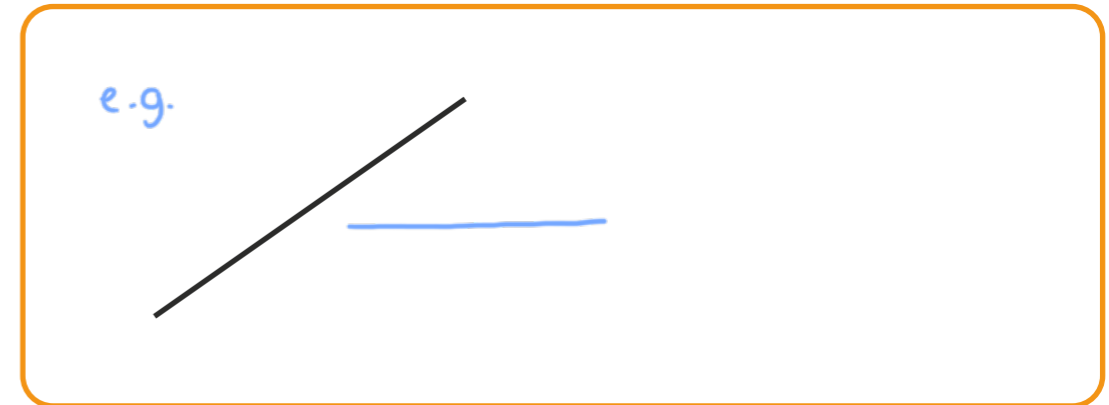
a) e.g.

b) e.g.

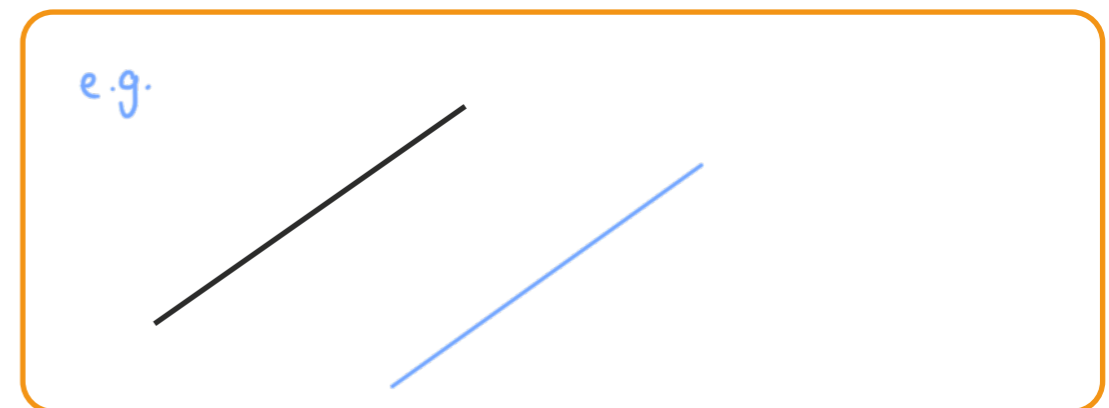**3** Amir says that the lines are not parallel because they are different lengths.

Is Amir correct? ___NO___

Why?

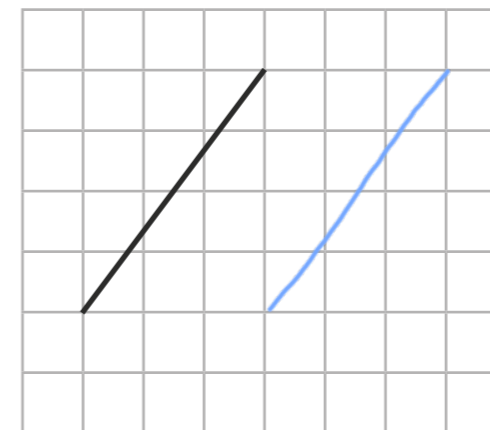**4** **a)** Here is a line. Draw a line that is **not** parallel to it.

e.g.

b) Here is a line. Draw a line that is parallel to it.
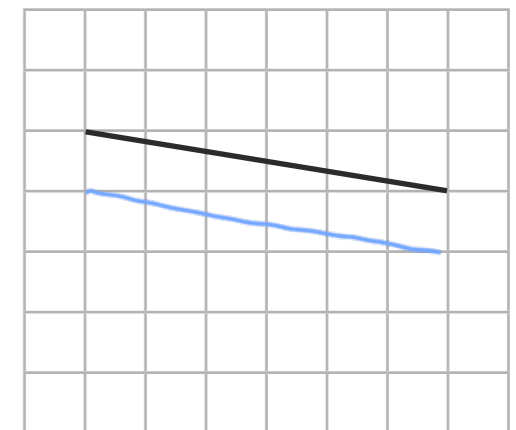
e.g.

5 Here are two lines.

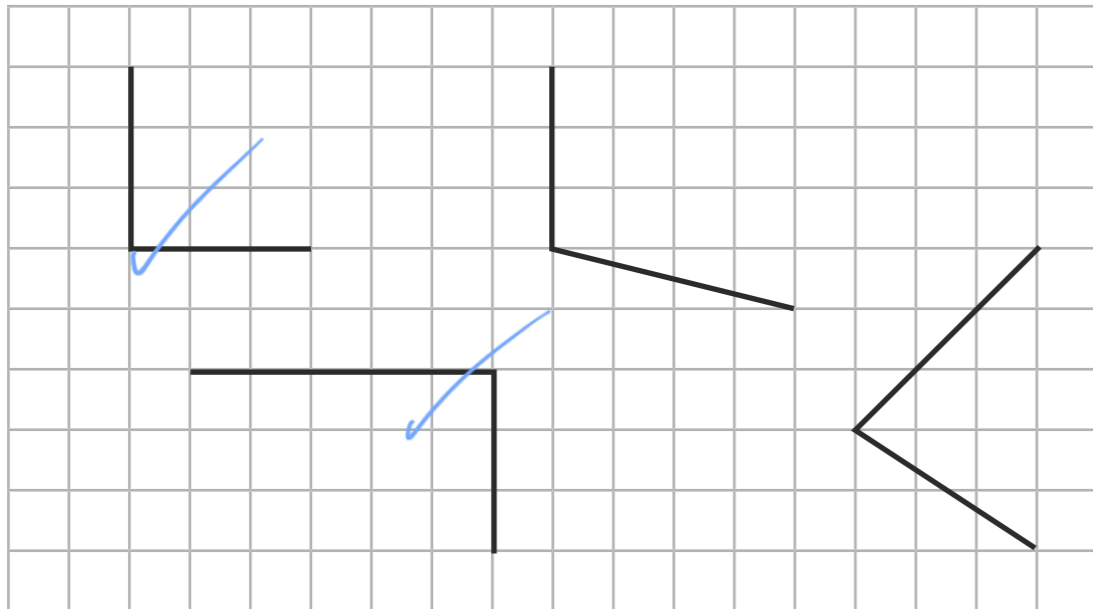Draw a line that is parallel to each.

a)

b)

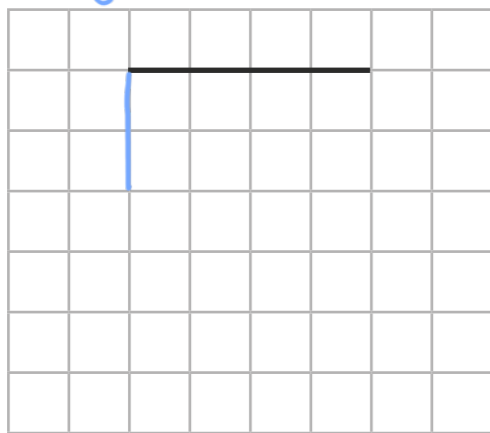Talk to a partner about how you did it.
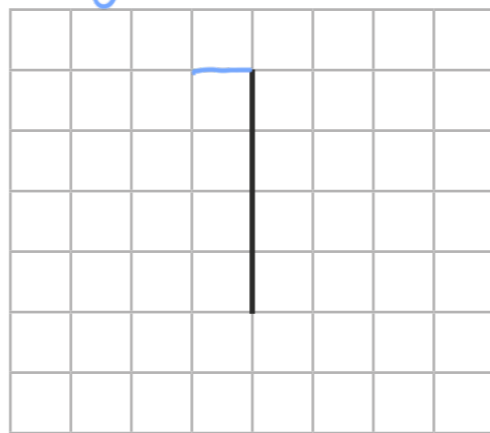
6 Tick the perpendicular lines.

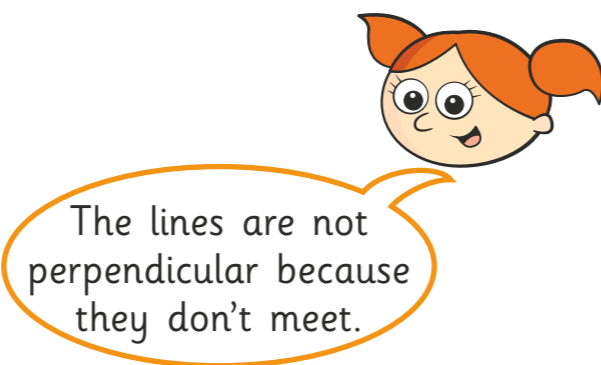**7** Here are two lines. Draw a line that is perpendicular to each.

a) e.g.

b) e.g.

8 Alex has drawn some lines on grids.

a)

The lines are not perpendicular because they don't meet.

Do you agree with Alex? __No__

b)

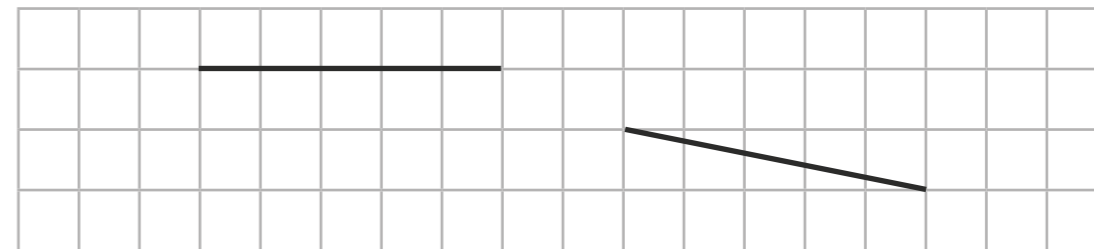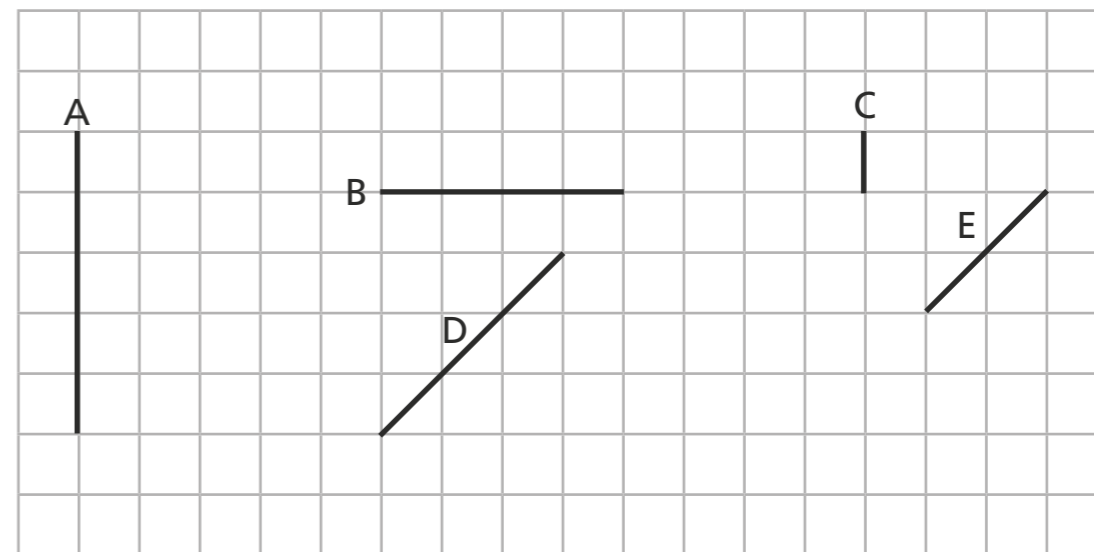The lines are parallel because they don't meet.
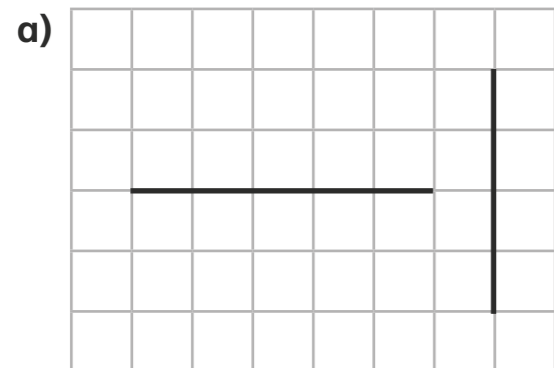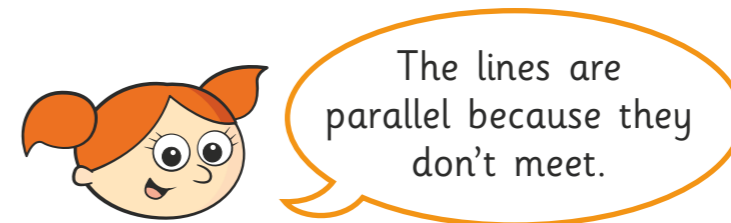
Do you agree with Alex? __No__

Talk about your answers with a partner.

9 Five lines are drawn on the grid.
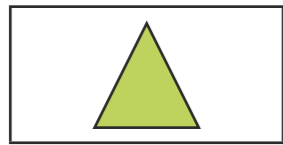

a) Which two pairs of lines are parallel?

__A and C   &   D and E__

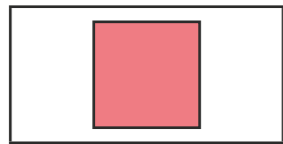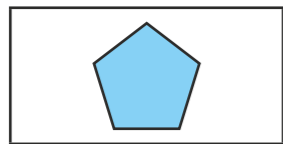**b)** Which two pairs of lines are perpendicular?
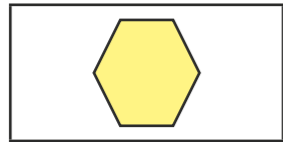
__A and B   &   B and C__
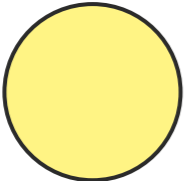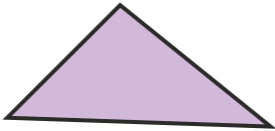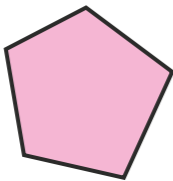
1 Match the shapes to the labels.

square

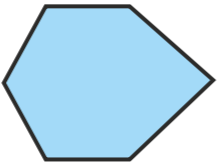pentagon

triangle

hexagon

2 Use the words to label the shapes.

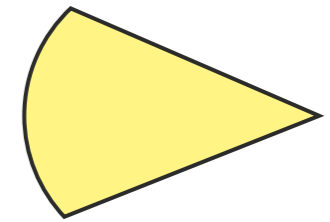rectangle hexagon circle triangle pentagon

a)

_____

b)

_____

c)
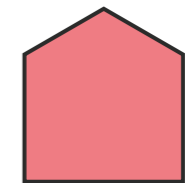
_____

d)

_____

3 Dora and Ron each have a shape.

a)

My shape has three sides, so it is a triangle.

Why is Dora incorrect?
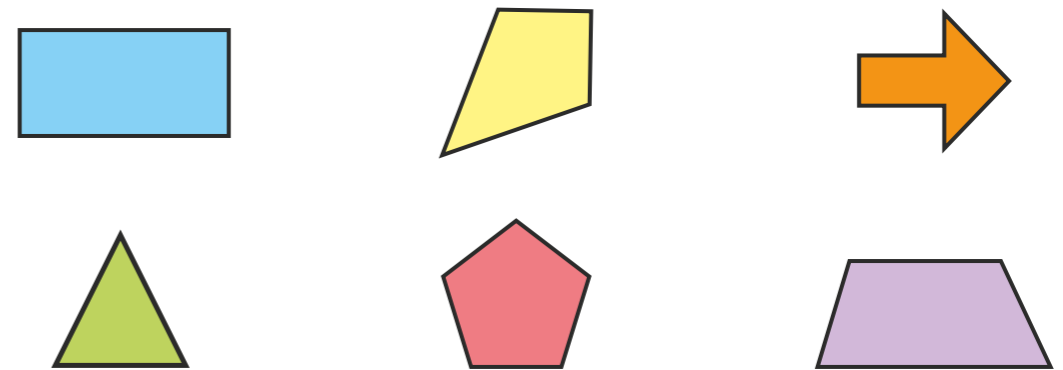
_____

_____

b)

My shape is a house.

Why might Ron think that? Talk to a partner.

What is the mathematical name for Ron's shape?

_____

4 Here are some shapes.

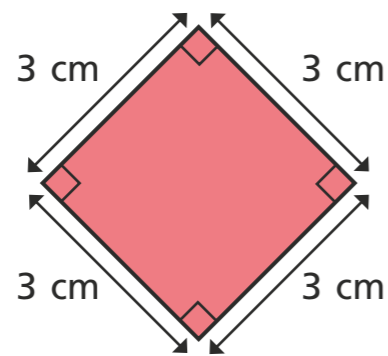**a)** Circle all the quadrilaterals.

b) Draw three more quadrilaterals.

What do you notice about all the shapes you have drawn?
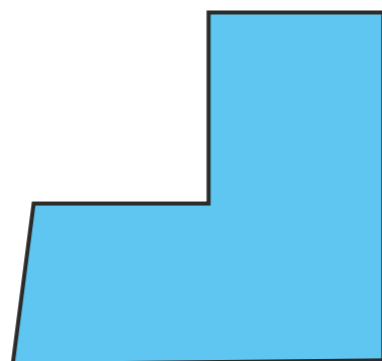
c) Is this shape a square?

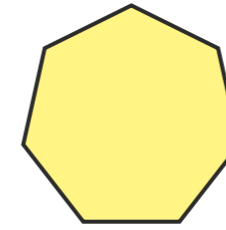Circle your answer.   **yes**   **no**

3 cm   3 cm

3 cm   3 cm

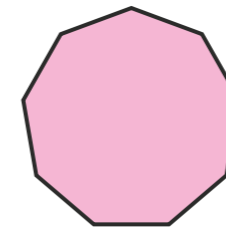Compare answers with a partner.
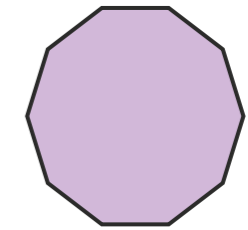
5 This shape is a hexagon.

Why is it a hexagon?

_____

_____

6 What is the name of each shape?
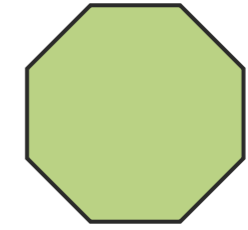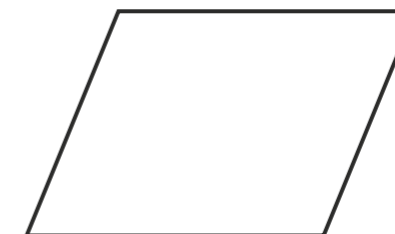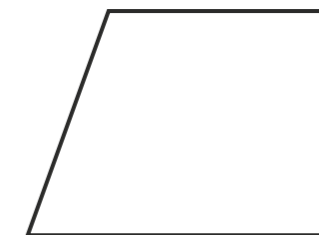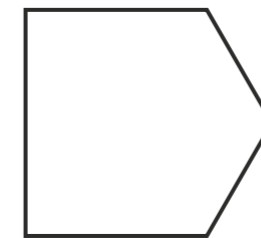
_____   _____

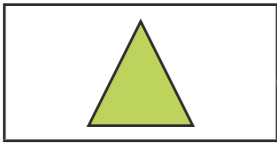_____   _____
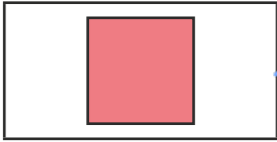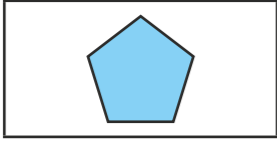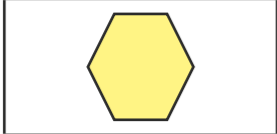
How do you know? Talk about it with a partner.

7 Each shape has at least one pair of parallel sides.

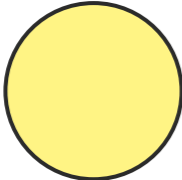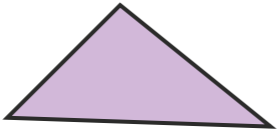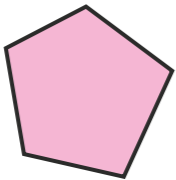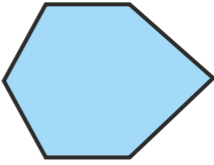Draw on the shapes to show the parallel sides.

Recognise and describe 2D shapes

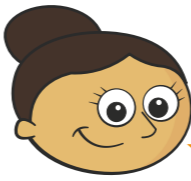**1** Match the shapes to the labels.
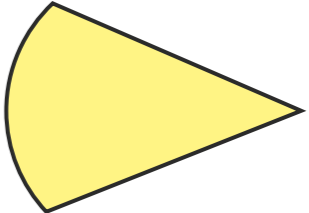
square

pentagon

triangle

hexagon

2 Use the words to label the shapes.

rectangle   hexagon   circle   triangle   pentagon
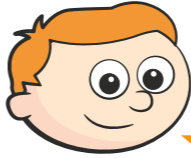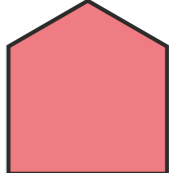
a)

Circle

c)

triangle

b)

pentagon

d)

hexagon

3 Dora and Ron each have a shape.

a)

My shape has three sides, so it is a triangle.

Why is Dora incorrect?

A triangle has three straight sides. This shape has two straight sides and one curved.

b)

My shape is a house.

Why might Ron think that? Talk to a partner.

What is the mathematical name for Ron's shape?

pentagon

4 Here are some shapes.

a) Circle all the quadrilaterals.

b) Draw three more quadrilaterals.

e.g.

What do you notice about all the shapes you have drawn?

c) Is this shape a square?

Circle your answer. (**yes**) **no**

3 cm 3 cm
3 cm 3 cm

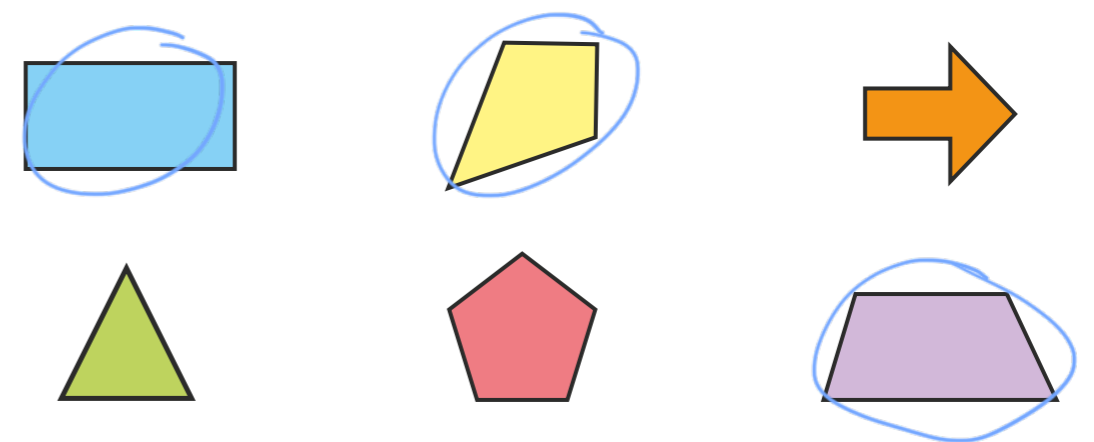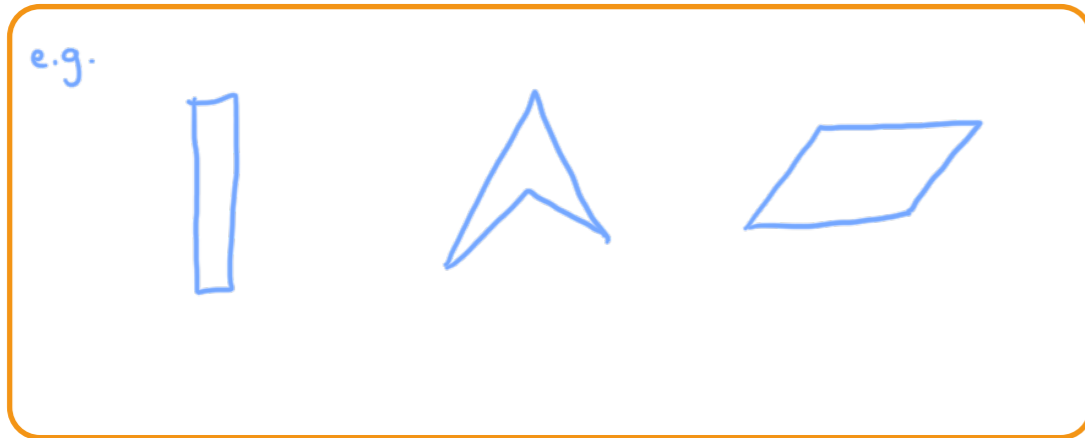Compare answers with a partner.

5 This shape is a hexagon.

Why is it a hexagon?

It has 6 sides.

6 What is the name of each shape?

heptagon

octagon

nonagon

decagon

How do you know? Talk about it with a partner.

7 Each shape has at least one pair of parallel sides.

Draw on the shapes to show the parallel sides.

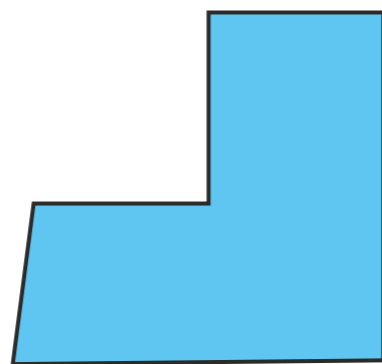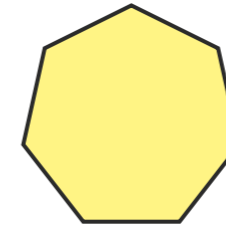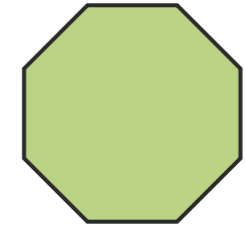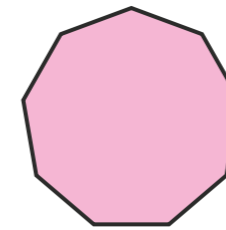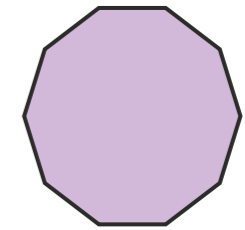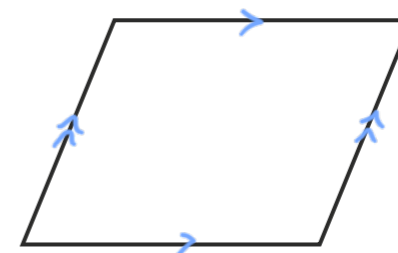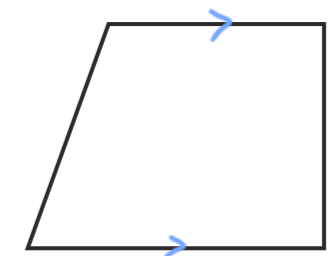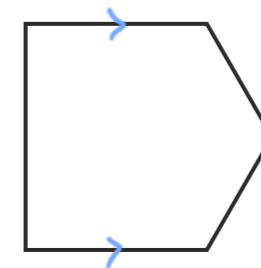White Rose Maths

1 Use the word bank to label each quadrilateral.

rhombus   parallelogram   trapezium

rectangle   square

a)

_____

b)

_____

c)

_____

d)

_____

e)

_____

How did you know which shape was which?

2 Here are some quadrilaterals.

A   B   C

D   E
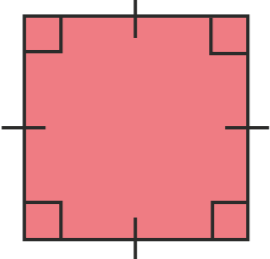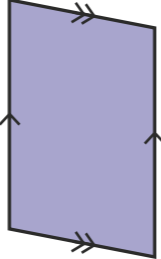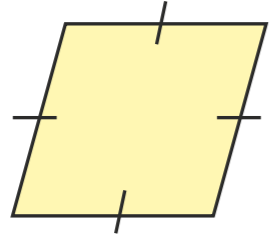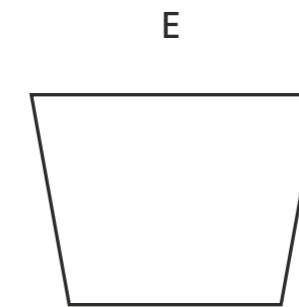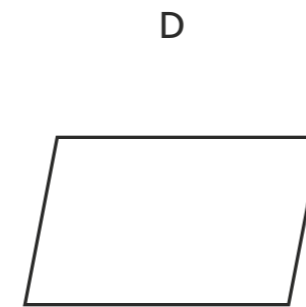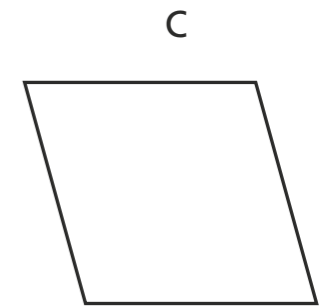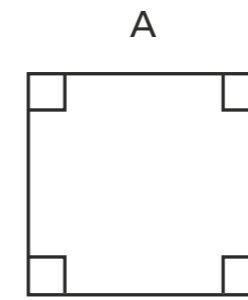
a) Mark any right angles on the shapes.
One shape has been done for you.

b) Mark any pairs of parallel lines.
One shape has been done for you.

c) Which shapes do not have any right angles?

_____

d) Which shapes have two pairs of parallel lines?

_____

e) Which shapes have four equal sides?

_____

Compare answers with a partner.

3 Complete the table.

Shape	Polygon?	Number of sides	Number of right angles	Number of pairs of parallel sides	Number of equal sides
	Yes	4	4	2	2 pairs
					2

What is the same about all of the shapes?

What is different?

4 Draw the shapes on the grid.

a) square   **b)** trapezium   **c)** parallelogram

5 This is a square because it has got 4 equal sides.
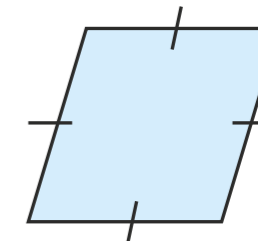
Do you agree with Rosie? _____

Explain your answer.

6 Complete this Frayer Model to describe a quadrilateral.

My definition	Key characteristics
Example	Non-example

Quadrilateral

Quadrilaterals

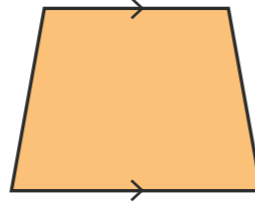**1** Use the word bank to label each quadrilateral.

rhombus	parallelogram	trapezium

rectangle	square

a)

square

b)

_rectangle_

c)

rhombus

d)

parallelogram
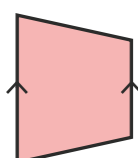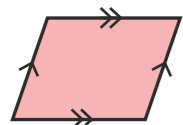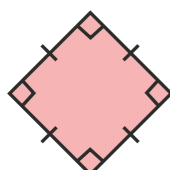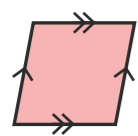
e)

trapezium

How did you know which shape was which?

2 Here are some quadrilaterals.

A   B   C

D   E
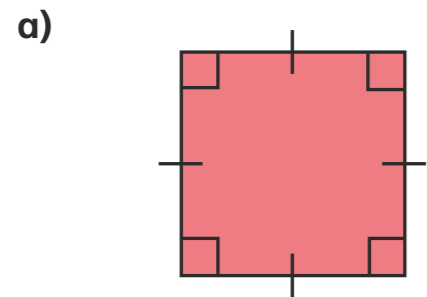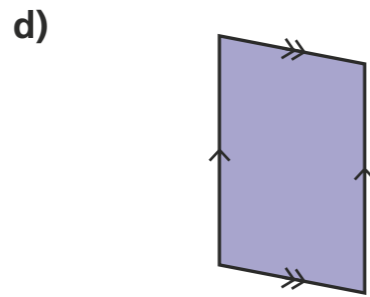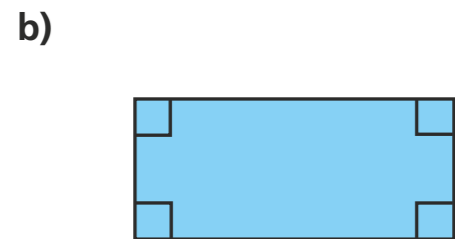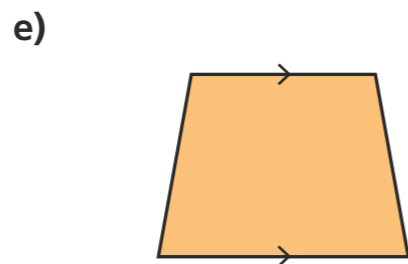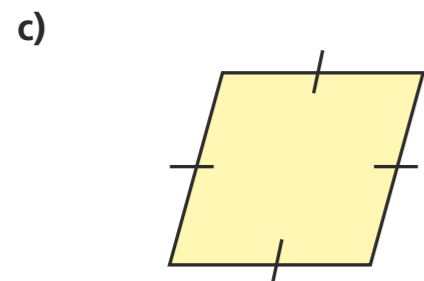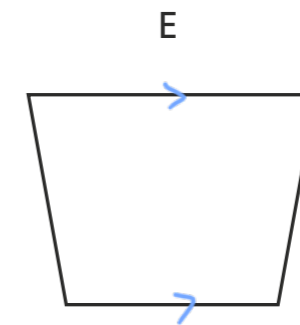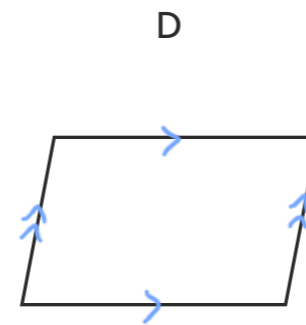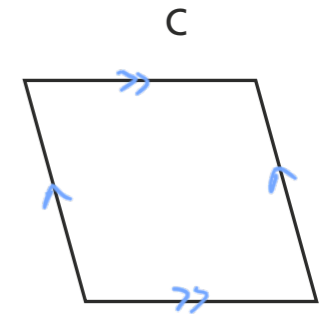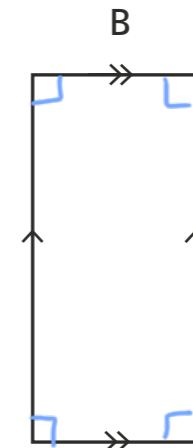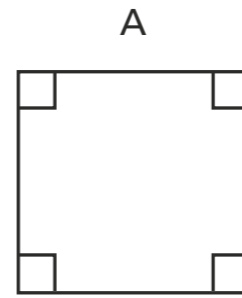
a) Mark any right angles on the shapes.
One shape has been done for you.

b) Mark any pairs of parallel lines.
One shape has been done for you.

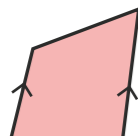**c)** Which shapes do not have any right angles?

_C D E_

d) Which shapes have two pairs of parallel lines?

_B C D_

e) Which shapes have four equal sides?
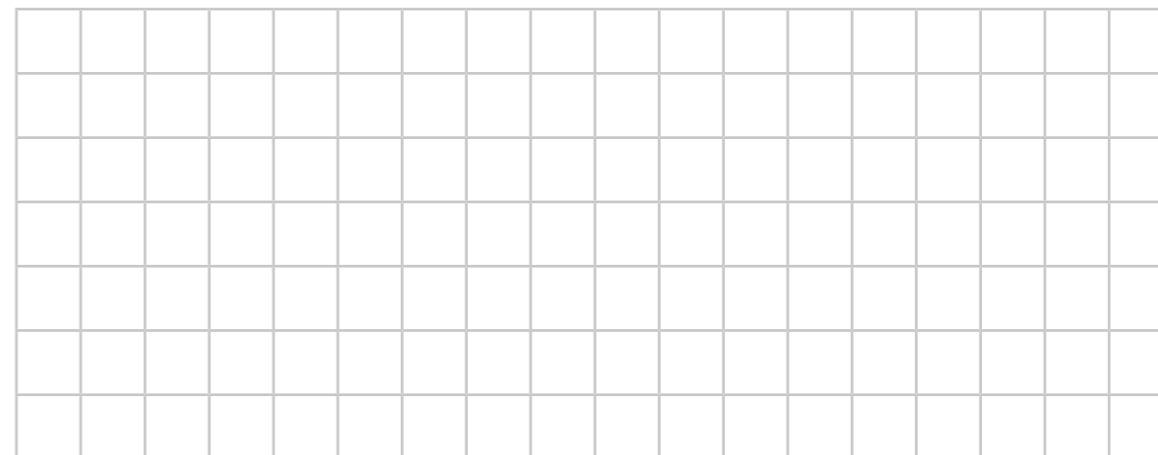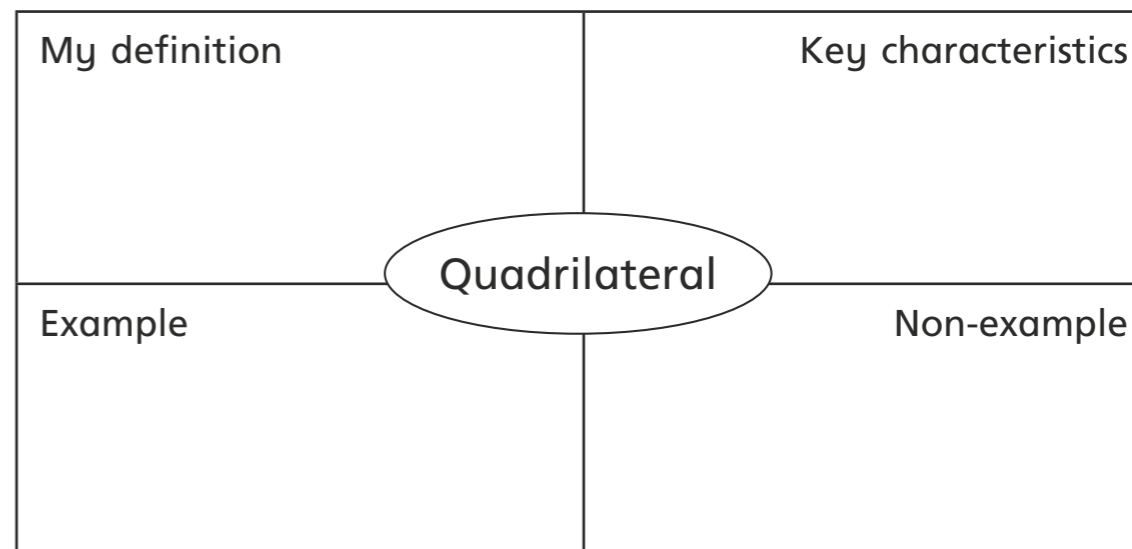
_A C_

Compare answers with a partner.

3 Complete the table.

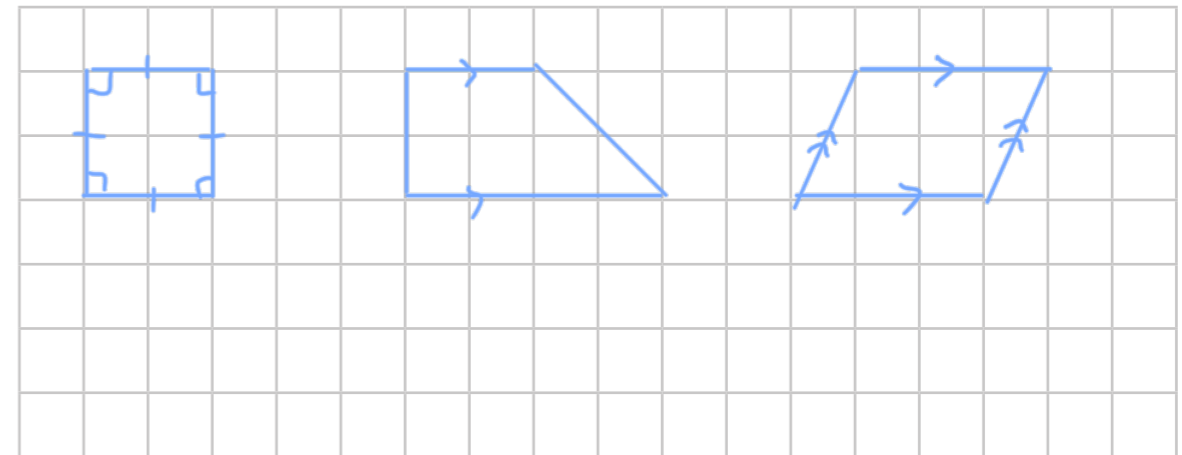| Shape	Polygon?	Number of sides	Number of right angles	Number of pairs of parallel sides	Number of equal sides
	Yes	4	4	2	2 pairs
	Yes	4	0	1	2
	Yes	4	0	2	2 pairs
	Yes	4	4	2	4
	Yes	4	0	2	4
	Yes	4	0	1	0

What is the same about all of the shapes?
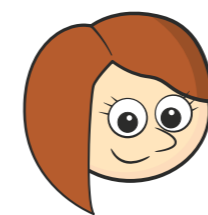
What is different?

4 Draw the shapes on the grid.

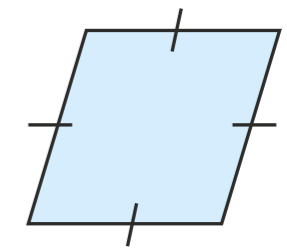**a)** square   **b)** trapezium   **c)** parallelogram

e.g.

5

This is a square because it has got 4 equal sides.

Do you agree with Rosie? __No__

Explain your answer.

6 Complete this Frayer Model to describe a quadrilateral.

e.g.

My definition	Key characteristics
A closed shape with four straight sides.	closed shape 4 straight sides 4 vertices
Example	**Non-example**

Quadrilateral