## Year 6: Week 4, Day 5

## Quadrilaterals

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. If possible, watch the PowerPoint presentation with a teacher or another grown-up.


OR start by carefully reading through the Learning Reminders.

2. Tackle the questions on the Practice Sheet.

There might be a choice of either Mild (easier) or Hot (harder)!
Check the answers.

3. Finding it tricky? That's OK... have a go with a grown-up at A Bit Stuck?

4. Have I mastered the topic? A few questions to Check your understanding.
Fold the page to hide the answers!

```
Identify the value of the '4' in the following numbers:
    (a) 3.407
(b) 4.821
(c) 0.043
(d) }5.10
(e) 48,739
```

[^0]
## Classify and sort quadrilaterals.

- Draw two different quadrilaterals (4 straight sides).
- Describe your shapes and agree what is different and what is the same about them.
 least one pair of parallel sides? What shape is it?

Does one shape have at least one pair of perpendicular sides? What shape is it?

Does one shape have four equal sides? What shape is it?
four right angles? What shape is it?

## Rectangles have four right angles.

Squares have four right angles AND four equal sides.

A rhombus has equal sides, but two different angle sizes (opposite angles equal).

## Learning Reminders




## Practice Sheet Hot Quadrilateral challenge

Discuss the questions below with a partner. Write your answers in your book, and use diagrams to illustrate your answers.


## Can you draw a...

1. Quadrilateral with exactly 3 right angles? If so can you name it?
2. Quadrilateral with exactly 2 right angles? If so can you name it?
3. Symmetrical quadrilateral with exactly 1 right angle? If so can you name it?
4. Quadrilateral with exactly 3 equal sides? If so can you name it?
5. Quadrilateral with no right angles and two pairs of equal sides that are next to each other. If so, can you name it?
6. Quadrilateral with two pairs of opposite equal sides and no right angles. If so can you name it?
7. Trapezium with no lines of symmetry.
8. A quadrilateral with no equal sides or angles.

## Challenge

Does the quadrilateral you drew in (8) tesselate?
Tesselate means that repeated copies of it fit together with no gaps.

## Practice Sheets Answers

## Quadrilateral sort (mild)

A = Parallelogram
B = Trapezoid
C = Kite
D = Square
E = Rhombus

## Quadrilateral challenge (hot)

1. No quadrilateral can have exactly 3 right angles. Exactly 2 are possible (see Q2), as are exactly 4, but not 3 .
2. Shapes created will either be a form of trapezium, or a kite, or an irregular quadrilateral.
3. Kite
4. Isosceles trapezium or irregular quadrilateral, e.g.

5. Kite
6. Parallelogram
7. Yes, various examples may be drawn
8. Yes, various examples may be drawn

## A Bit Stuck? What's special?

## Things you will need:

- A sheet of quadrilaterals
- Scissors
- Ruler
- Right angle measurer lyou could use the corner of a sheet of paper or a book)
- A Carroll diagram sheet
- Glue stick
- A pencil


## What to do:

1. Cut out the quadrilaterals.
2. Take one and discuss where it belongs on the diagram.
3. Once you are agreed, stick it in the correct place on the sheet.
4. Repeat with each quadrilateral, one at a time.

## S-t-r-e-t-c-h:

Choose a different way to sort the quadrilaterals.

## Learning outcomes:

- I can identify and describe properties of quadrilaterals. - I can sort quadrilaterals according to their properties.
- I am beginning to find my own way to sort quadrilaterals.
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## Check your understanding Questions

Mystery quadrilaterals

- I have one pair of non-equal parallel sides. What am I?
- I have two pairs of equal sides, but no sides are parallel. Two opposite angles are equal but not the other two. What am I?
- I have four equal sides but no right angles. What am I?
- I have two pairs of parallel sides and no right angles. What am I?


## Check your understanding

## Answers

Mystery quadrilaterals

- I have one pair of non-equal parallel sides. What am I? A trapezium.
- I have two pairs of equal sides, but no sides are parallel. Two opposite angles are equal but not the other two. What am I? A kite.
- I have four equal sides but no right angles. What am I? A rhombus.
- I have two pairs of parallel sides and no right angles. What am I?

A parallelogram.

Children will find it helpful to sketch the shapes in questions like these.


[^0]:    What number is one hundred times smaller than 0.4 ?

