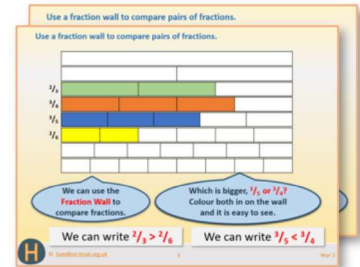


Week 6, Day 5

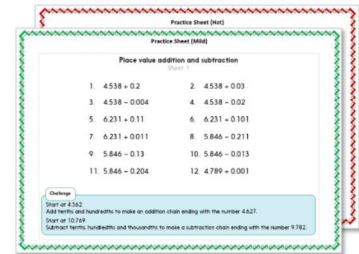
Properties of quadrilaterals

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

1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



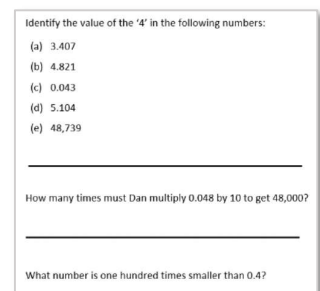
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



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

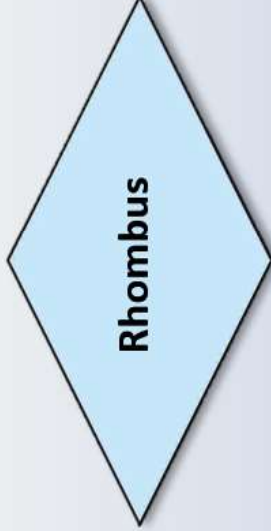
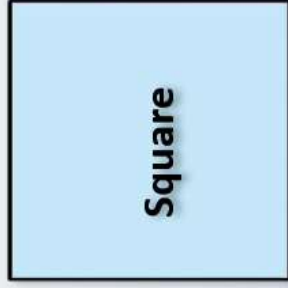


4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



Learning Reminders

Investigate properties of quadrilaterals.

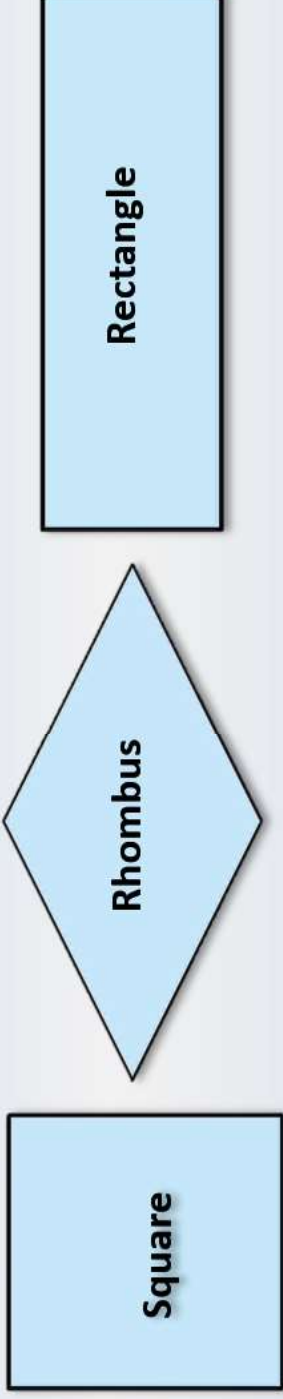


A quadrilateral is **any** polygon
with **four straight sides**.

Can you identify the parallel and
perpendicular lines in these shapes?
(Check the learning reminder from
yesterday if unsure).

Learning Reminders

Investigate properties of quadrilaterals.



A rectangle and square have all right angles. A square and a rhombus have all sides the same length. BUT only a square has both – all equal angles AND all sides the same length. A square is **THE regular quadrilateral**.

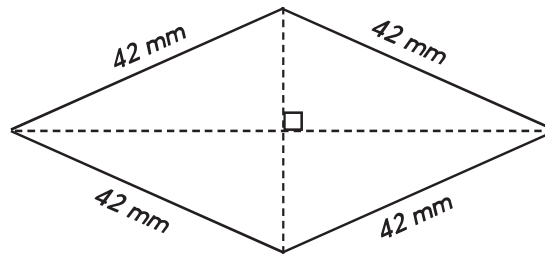
Practice Sheet Mild

Properties of polygons - quadrilaterals

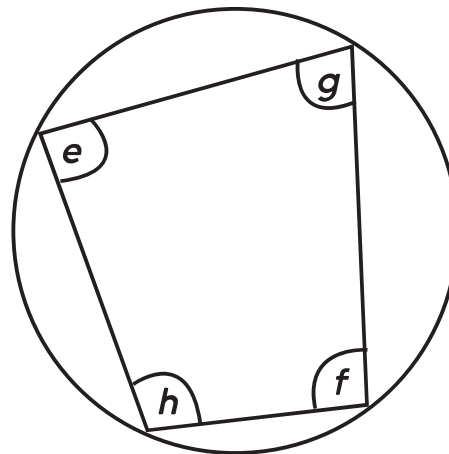
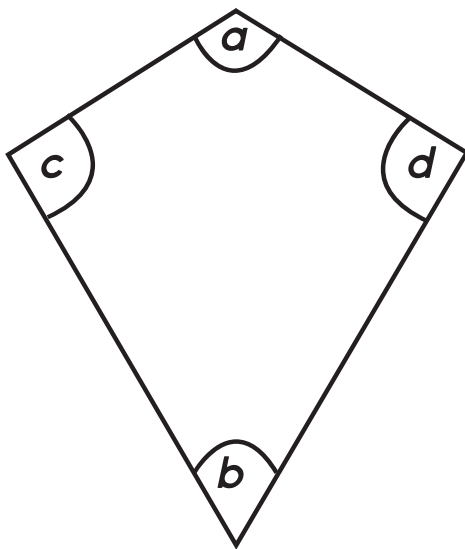
Complete this sheet if you have a protractor at home.

1.

What is this shape?
How do you know?



2.



Use a protractor to measure the angles in these shapes.
Write them down.

What do you notice about:

- c and d ,
- the total of e and f ,
- the total of g and h ?

3. In your book or on the back of this sheet, draw a quadrilateral with one pair of perpendicular sides.

Challenge

Draw two more quadrilaterals.

Measure and add up the four angles in each shape. What do you notice?

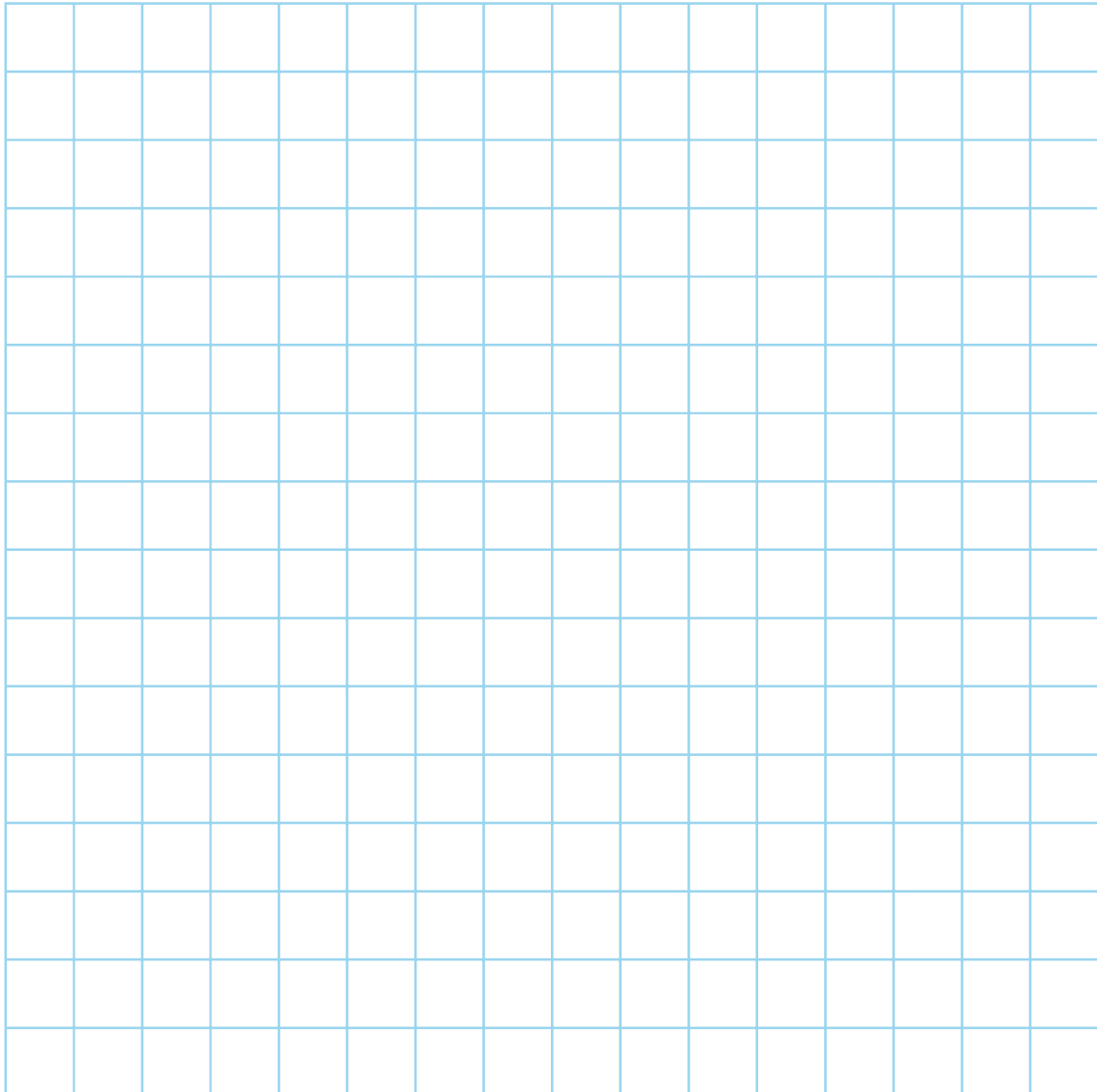
Practice Sheet Mild

Investigating quadrilaterals

- With a ruler draw five or six different quadrilaterals on the squared paper (see examples on the Learning Reminders).
- Use a ruler to join opposite vertices of the quadrilaterals.
- Investigate what is special about diagonals of different types of quadrilateral.

Which have diagonals that cross each other at right angles?

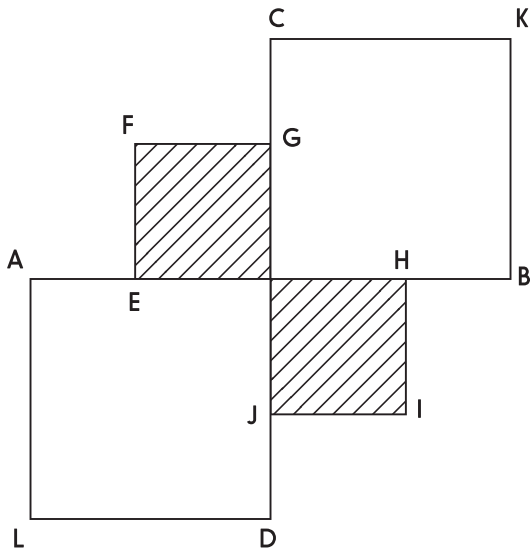
Which have diagonals that bisect (cut in half) each other?



Practice Sheet Hot

Exploring quadrilaterals

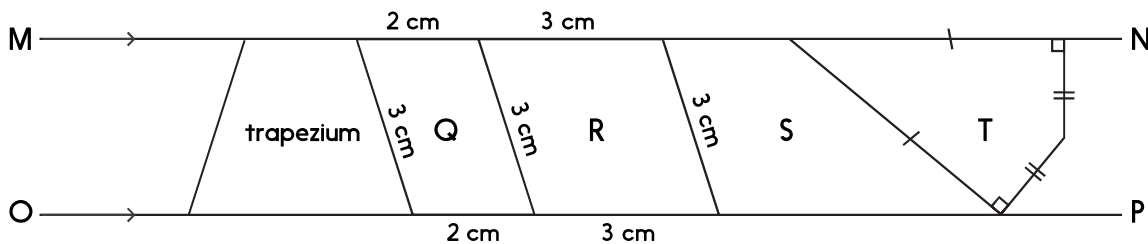
The grey shapes and the white shapes each have four equal sides and four equal angles.



TRUE or FALSE...?

- The grey shapes and the white shapes are squares.
- The grey shapes and the white shapes are all regular quadrilaterals.
- None of the shapes are polygons.
- Lines AB and CD are perpendicular to each other.
- Lines CK, AB and LD are all perpendicular to each other.
- Lines FE, AB and IJ are all parallel to each other.
- Lines AL and KB are parallel to AB.

2. The lines MN and OP are parallel. Some shapes and lengths are labelled.



- How many pairs of parallel sides does the trapezium have?
- Q and R show a rhombus and a parallelogram. Which is the parallelogram?
- How many pairs of parallel sides do Q and R each have?
- Describe shape S.
- Describe shape T.

Challenge

Draw and label your own pattern using perpendicular and parallel lines. Describe the lines, shapes and angles in your books.