



# 5.1 – Introduction to geometry

Student name: Answers Score: \_\_\_\_\_

1. A quadrilateral has

- two pairs of parallel sides
- all sides the same length
- no right angles.

Write down the mathematical name of this quadrilateral.

.....**Rhombus**..... [1]

2. (a) Write down the mathematical name of the quadrilateral that has rotational symmetry of order 2 but no lines of symmetry.

.....**Parallelogram**..... [1]

(b) Write down the mathematical name of the quadrilateral that has exactly one line of symmetry.

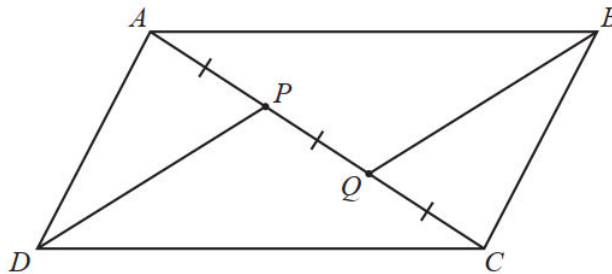
.....**Kite or isosceles trapezium**..... [1]

3. A quadrilateral has all sides equal and exactly two lines of symmetry.

Write down the mathematical name of this quadrilateral.

.....**Rhombus**..... [1]

4.



NOT TO SCALE

$ABCD$  is a parallelogram.

$AP = PQ = QC$ .

Show that triangles  $BQC$  and  $DPA$  are congruent.

| Statement                                   | Reason                                  |
|---------------------------------------------|-----------------------------------------|
| <u><math>BC = DA</math></u>                 | <u>Opposite side of a parallelogram</u> |
| <u><math>\angle BCQ = \angle DAP</math></u> | <u>Alternate angles</u>                 |
| <u><math>AP = QC</math></u>                 | <u>SAS</u>                              |
| .....                                       | ..... [3]                               |

