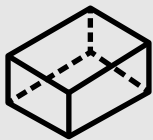# Geometry: properties of 2D and 3D shapes

💡 Helpful Hint

Here are some of the shapes that you might need.
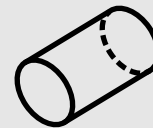
Cuboid | Cone | Square-based pyramid | Triangular-based pyramid | Cylinder | Sphere

Right-angled triangle
a triangle with one right angle

Equilateral triangle
a triangle with three equal sides

Isosceles triangle
a triangle with two equal sides

Rhombus
a **parallelogram** with four equal sides. Opposite angles are also equal

Parallelogram
a four-sided shape in which opposite sides are parallel and equal. Opposite angles are also equal

Trapezium
a four-sided shape in which two sides are parallel

Pentagon
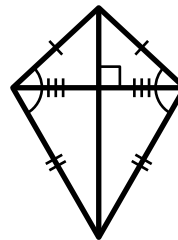a shape with five sides

Hexagon
a shape with six sides

Heptagon
a shape with seven sides

Rectangle
a four-sided shape with four right angles. Opposite sides are parallel and equal; **adjacent** sides are unequal

Quadrilateral
a shape with four sides

Kite
a four-sided shape with diagonals crossing at right angles

(A) Answer these questions. You do not need to show your workings out.

1 What is the name of a shape with three sides, two of equal length?

_____ [1]

2 What is the name of a shape with four sides and four right angles?
The sides are not all the same length.

_____ [1]

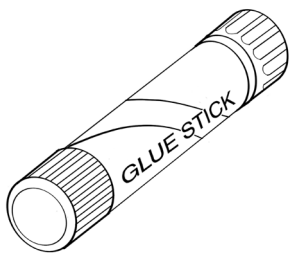**3** What is the name of a shape with seven sides?

_____ [1]

4 What is the name of a shape with only one surface?

_____ [1]

5 How many **edges** are on a cuboid?
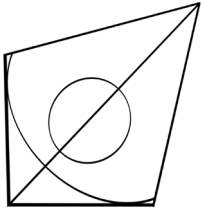
_____ [1]

6

What is the special name of this **prism**?

_____ [1]

6

(B) Answer these questions. You do not need to show your workings out.
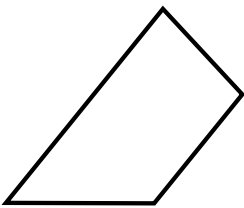
1

What is the name of this shape?

_____ [1]

2 What is the name of a rectangle with all the sides of equal length?
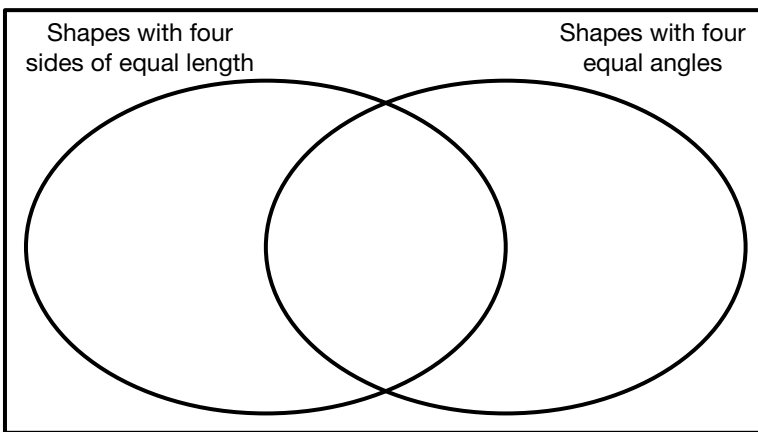
_____ [1]

3

What is the name of this shape?

_____ [1]

4

Place the following letters in the correct place on the **Venn diagram** above, according to their properties.

[4]

L: square   *N*: rhombus

M: rectangle   *P*: parallelogram

5 Which three four-sided shapes have diagonals which cross at right angles?

_____ [3]

10

ⓒ Answer these questions. You do not need to show your workings out.

1 What is the name of a shape with four triangular **faces** and one square face?

_____ ☐ [1]

2 What is the name of a trapezium with two pairs of parallel sides?

_____ ☐ [1]

3 What is the name of a solid with only one edge?

_____ ☐ [1]

4 What is the name of a solid with six edges?

_____ ☐ [1]

5 Which three shapes are being described?
Has four equal straight sides with four right angles.

_____

Has four sides all of equal length, with two pairs of matching angles.

_____

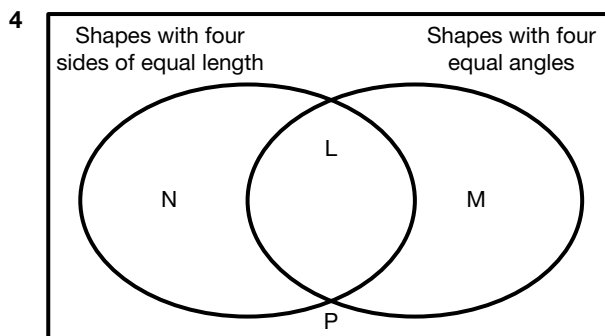Has four sides with adjacent sides being equal and only one line of symmetry.

_____ ☐ [3]

7

Unit 1

A

1 isosceles triangle

2 rectangle

3 heptagon

4 sphere

5 12

6 cylinder

B

1 kite

2 square

3 trapezium

4

5 kite, rhombus, square

C

1 square-based pyramid

2 parallelogram

3 cone or hemisphere

4 triangular-based pyramid or tetrahedron

5 square, rhombus and kite