

MATHS

YEAR 6

GEOMETRY: PROPERTIES OF SHAPE

NC. Objective: To compare and classify geometric shapes based on their properties and sizes and find unknown angles in shapes.

1. Hamlet discovers a secret room in the castle that is shaped like a parallelogram. One side of the room is 12m and the other is 8m.



- What is the perimeter of the room?
- If the height of the parallelogram is 6m, calculate its area.

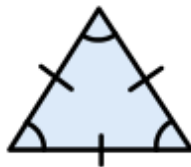
2. Polonius is designing a tiled floor for the castle using square tiles. Each tile has a side length of 1.5m.



- Calculate the area of one tile.
- If Polonius uses 100 tiles, what is the total area of the tiled floor?

3. The armoury at Elsinore Castle contains three types of shield.

Equilateral triangle shield



Isosceles triangle shield



Scalene triangle shield

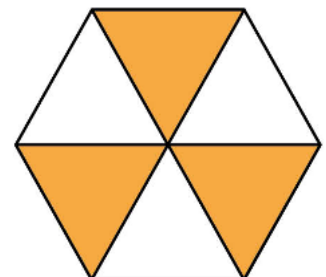


Describe the properties of each type of triangle.

4. Hamlet has his own personal shield. The design is six triangles inside a hexagon.

Hamlet says:

"My shield shows me that the sum of angles in a hexagon is 1,080° because $6 \times 180^\circ = 1,080^\circ$."



Do you agree with Hamlet?
Explain your answer.