2D Shape Problem solving

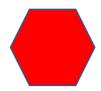
When my shape has 4 sides and 4 vertices it is a square. Is this always, sometimes or never true and why?

Can you draw a pattern of 2D shapes

Convince me this is a quadrilateral

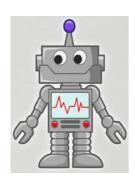


What are the names of these shapes?





Our robot friend is thinking of a shape. "My shape has three vertices and three edges"
What shape is the robot thinking of and can you draw it?



Convince me these are all triangles.





When my shape has 6 sides and 6 vertices it is a square. Is this always, sometimes or never true and why?