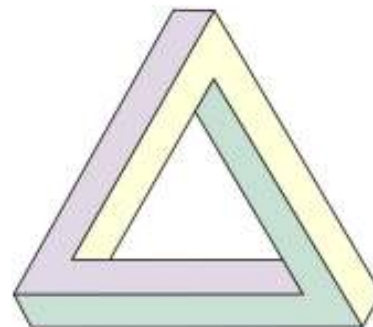


What are the shapes of the triangles?

(1) Given 12, 15, 20 be the sides of the triangle $\triangle ABC$. If we use the altitudes h_a , h_b and h_c of $\triangle ABC$ as lengths to construct another $\triangle XYZ$. What kind of triangle is $\triangle XYZ$?

(2) Given that a , b and c are the three sides of $\triangle ABC$,
If $c^2(a^2 + b^2 - c^2) = b^2(c^2 + a^2 - b^2)$, then what kind of triangle is $\triangle ABC$?

(3) In $\triangle ABC$, if $\frac{\cos A + 2 \cos C}{\cos A + 2 \cos B} = \frac{\sin B}{\sin C}$, then what is the shape of the triangle?



Terminology : A triangle can be acute, obtuse, right-angled, equilateral, isosceles or scalene.