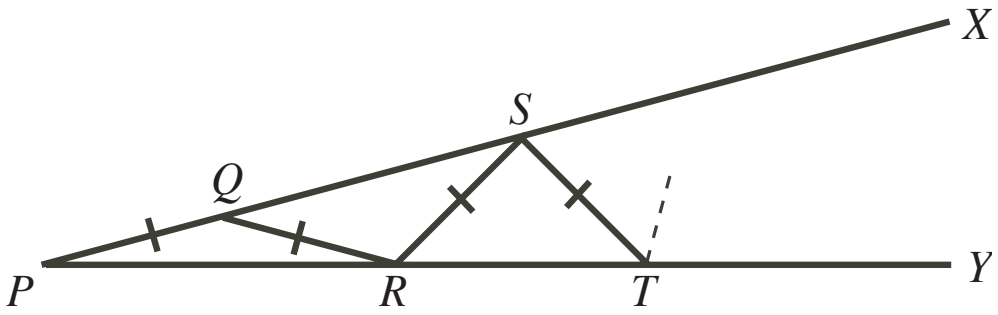
Problem of the Week
Grade 9 and 10

Isosceles Triangles Rule



In the diagram, $\angle XPY = 15°$. Points $Q, R, S, T, \ldots$ alternate from one arm of the angle to the other, each point located farther away from P than the point before. If $PQ = QR = RS = \ldots$, what is the maximum number of isosceles triangles with equal sides of length PQ that can be formed?