

Hong Kong Mathematics Olympiad 2012 / 2013

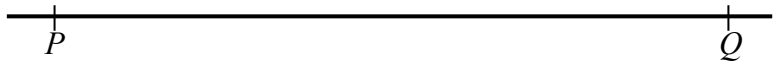
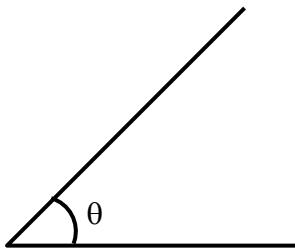
Heat Event (Geometric Construction)

香港數學競賽 2012 / 2013

初賽（幾何作圖）

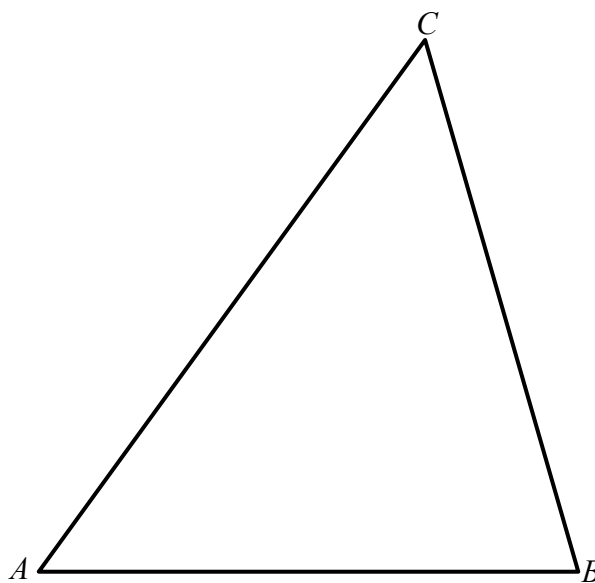
1. Line segment PQ and an angle of size θ are given below. Construct the isosceles triangle PQR with $PQ = PR$ and $\angle QPR = \theta$.

下圖所示為線段 PQ 及角 θ 。試構作一個等腰三角形 PQR ，其中 $PQ = PR$ 及 $\angle QPR = \theta$ 。



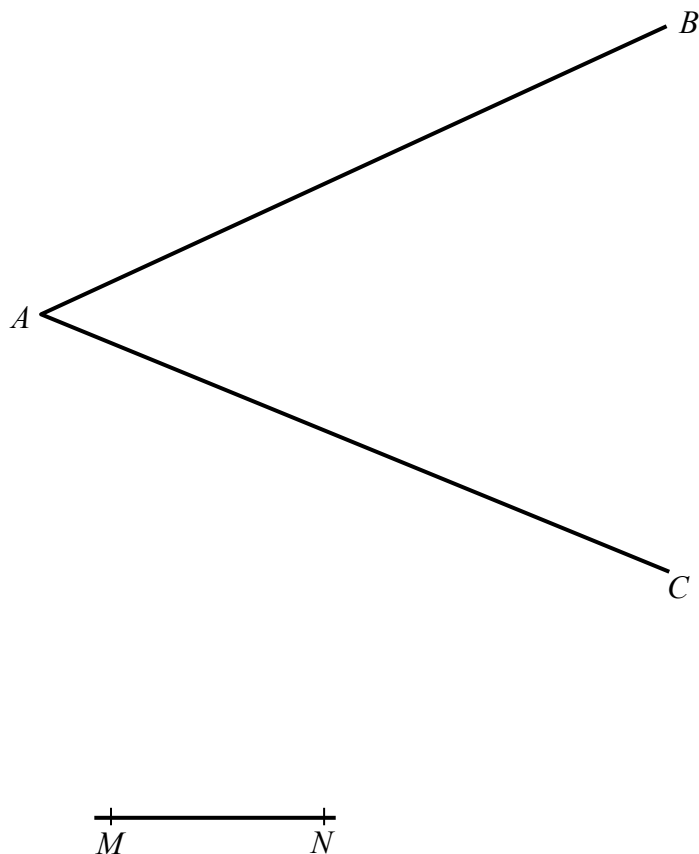
2. Construct a rectangle with AB as one of its sides and with area equal to that of $\triangle ABC$ below.

試構作一個面積與下圖所示的 $\triangle ABC$ 面積相等的長方形，長方形其中一邊為 AB 。



3. The figure below shows two straight lines AB and AC intersecting at the point A . Construct a circle with radius equal to the length of the line segment MN so that AB and AC are tangents to the circle.

下圖所示為兩相交於 A 點的直線 AB 及 AC 。試構作一半徑等於線段 MN 的圓使得 AB 及 AC 均為該圓的切線。



END
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