## Eötvös Mathematical Competition 1895

1. Prove that there are exactly $2\left(2^{n-1}-1\right)$ ways of dealing $n$ cards to two persons. (The persons may receive unequal numbers of cards.)
2. Construct a point $N$ inside a given right triangle $A B C$ such that the angles $\angle N B C, \angle N C A$ and $\angle N A B$ are equal.
3. Given the circumradius $R$ of a triangle, a side length $c$, and the ratio $a / b$ of the other two side lengths, determine all three sides and angles of this triangle.

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