The Legend of the King and the Mathematician and Several Infinite Categories of New Problems

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Abstract[1]

This Legend stemmed from the ancient riddle of the wolf, goat and cabbage that first was written in Latin about 1200 years ago and emerged from a collaboration between the sciences and the arts. The Polymath was asked to save the kingdom from imminent distraction . He trained several talented and genial young people of the realm to solve a wide range of mathematical transportation problems, hoping that a solution to one of these problems will save the Kingdom. But which one?

As the training went on the king became more impatient. So, in order to expedite the search he relaxed his conditions gradually. In each step the Polymath was able to pose a new infinite class of unsolved mathematical problems and became involved in solving these myriads of abstract riddles.

Our main aim in this talk is to convey several infinite categories of open problems that have been posed in [1] and [2].

[1] Mehdi Behzad, Naghmeh Samini, The Legend of the King and The Mathematician, Candle and Fog Publishing, 2013.

[2] Abbas Seify and Hossein Shahmohamad, Some New Results in the Alcuin Number of Graphs, Bulletin of the ICA, Volume 74(2015), 37-46.

[1]Part of this abstract has been extracted from the Introduction written by Professor Cheryl E. Praeger.