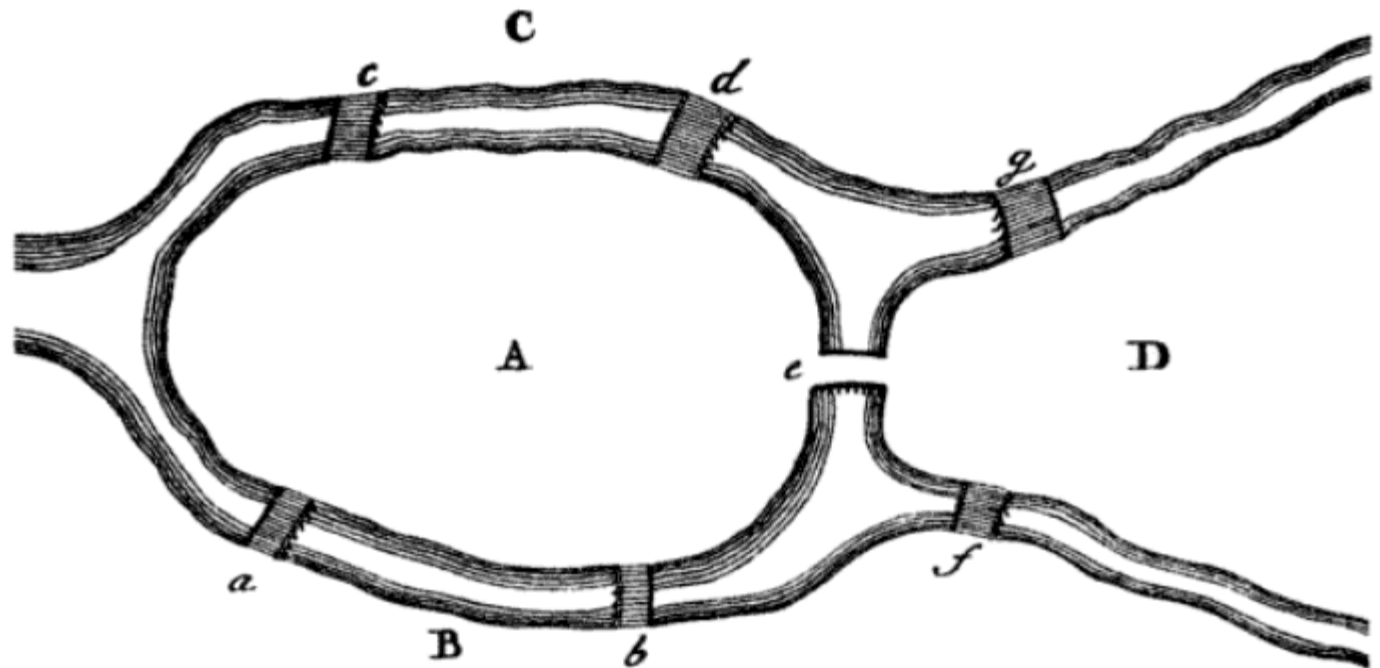




Kamienie milowe w teorii grafów

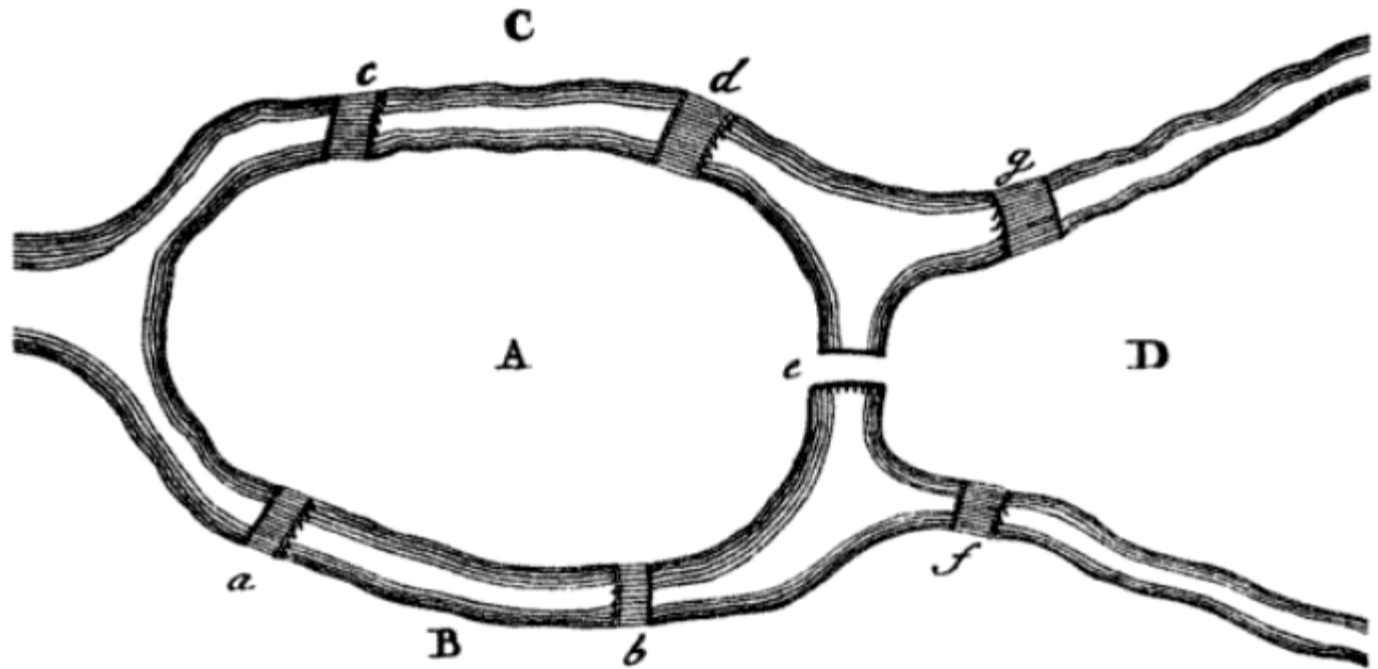
Problem mostów królewieckich



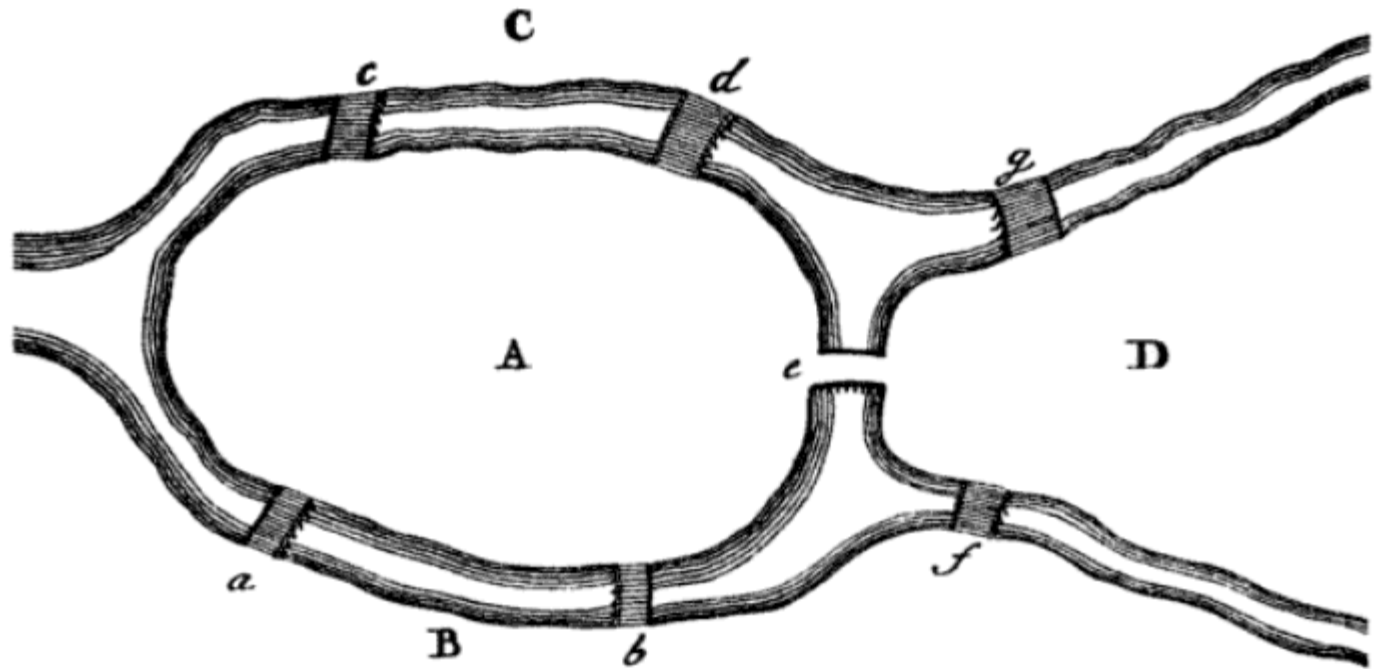
Problem mostów królewieckich

- Solutio problematis ad geometriam situs pertinentis (1736r.)

Problem mostów królewskich

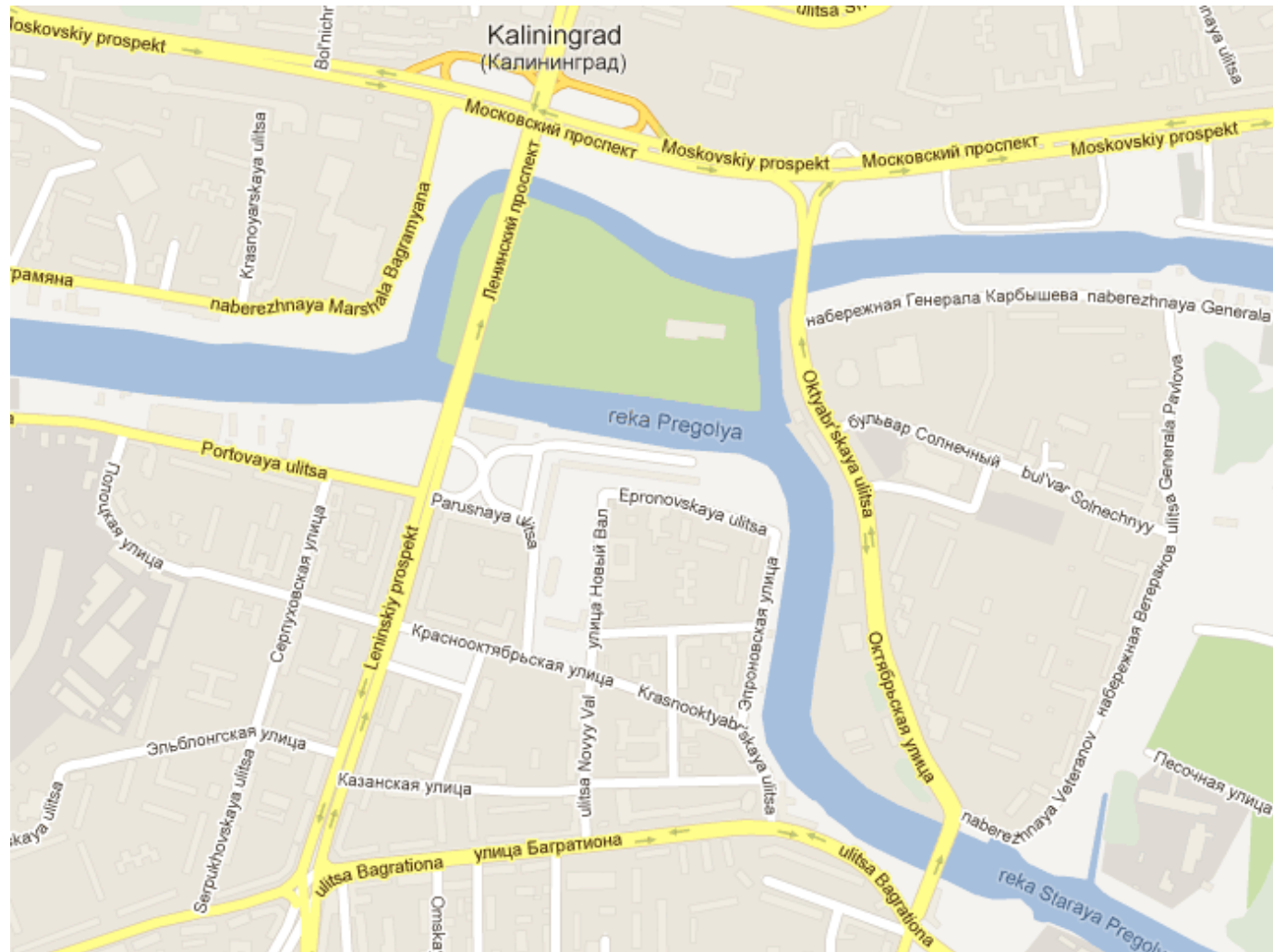


Problem mostów królewskich



$$2+2+2+3=9>8$$

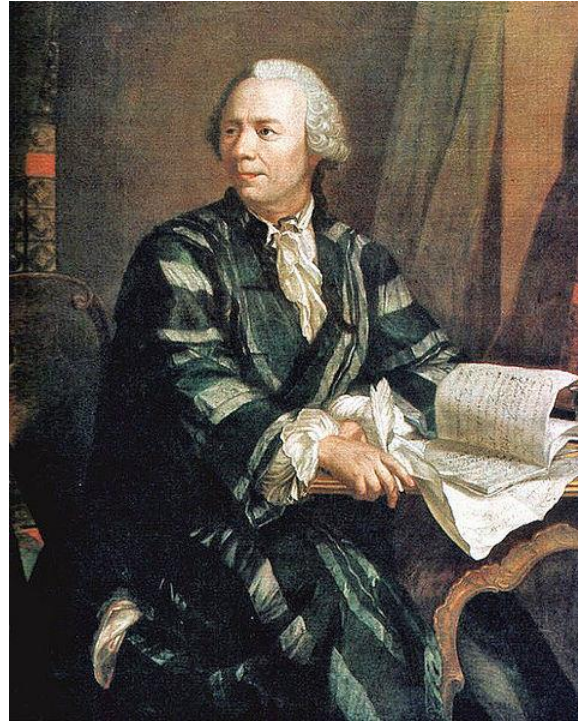
Problem mostów królewieckich





Problem podróżnika – cykl Hamiltona

Problem skoczka szachowego



Leonhard Euler
(1707 – 1783)

Problem skoczka szachowego

**Alexandre Théophile
Vandermonde
(1735 – 1796)**

Problem podróznika



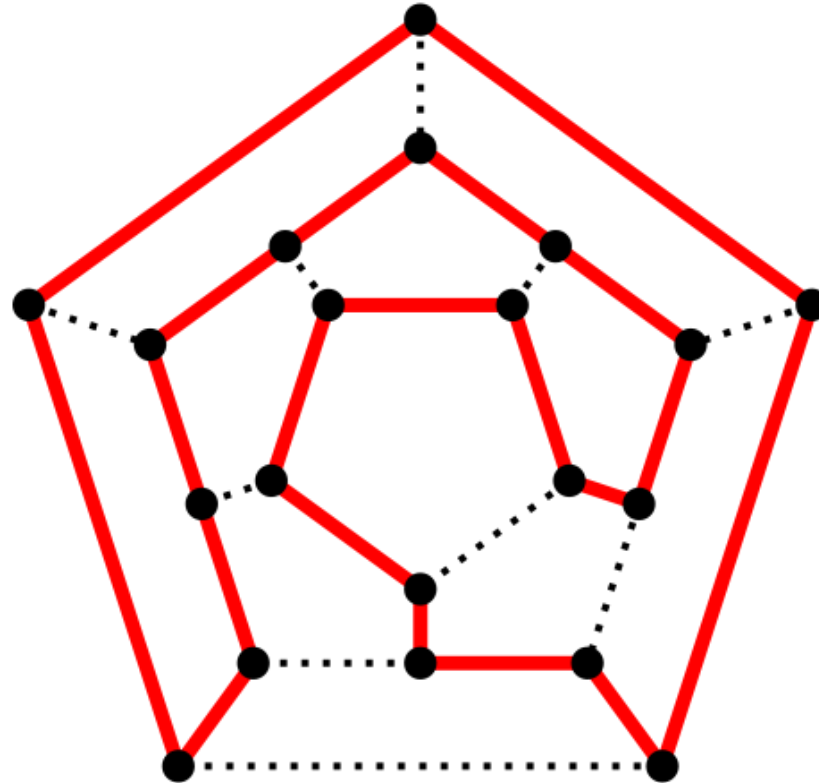
**Thomas Penyngton Kirkman
(1806 – 1895)**

„The Icosian Game”



**Sir William Rowan Hamilton
(1805 – 1865)**

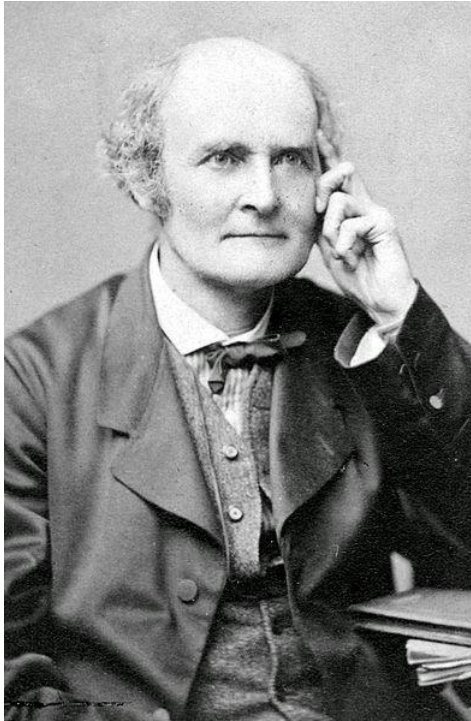
„The Icosian Game”





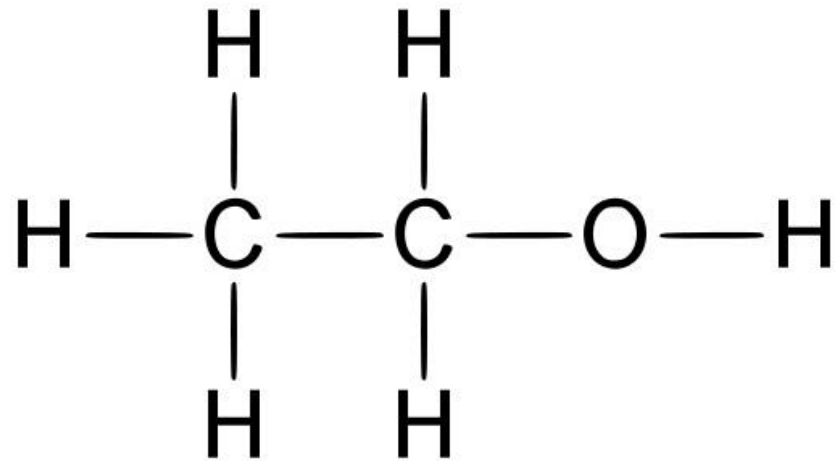
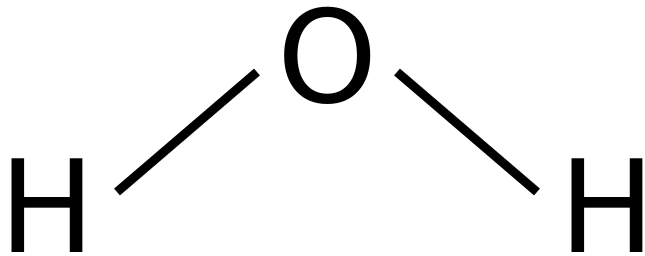
Drzewa

Drzewa

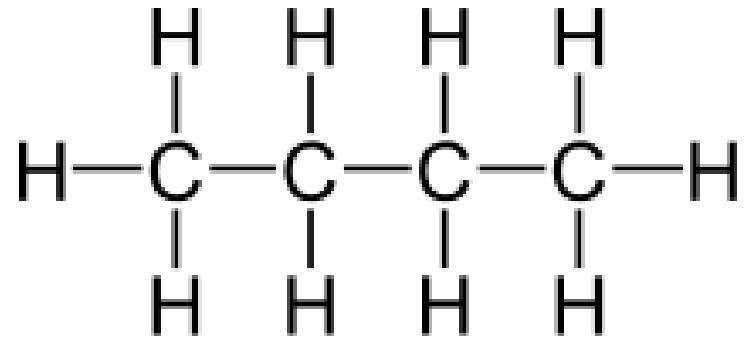
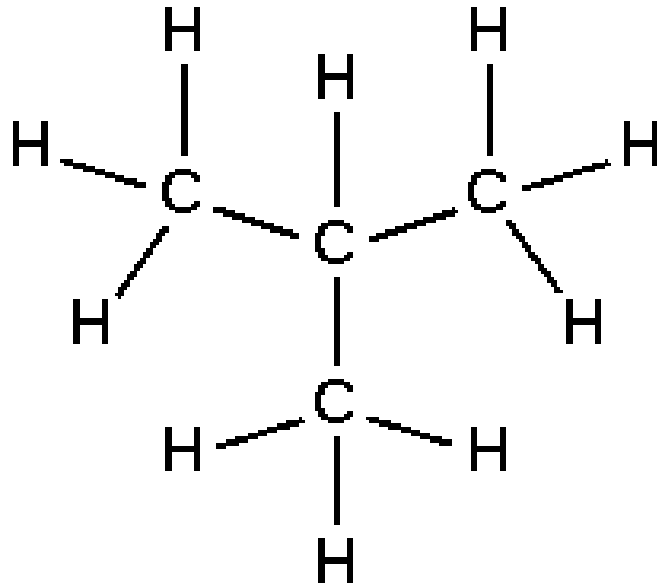


**Arthur Cayley
(1821 – 1895)**

Drzewa



Izomery

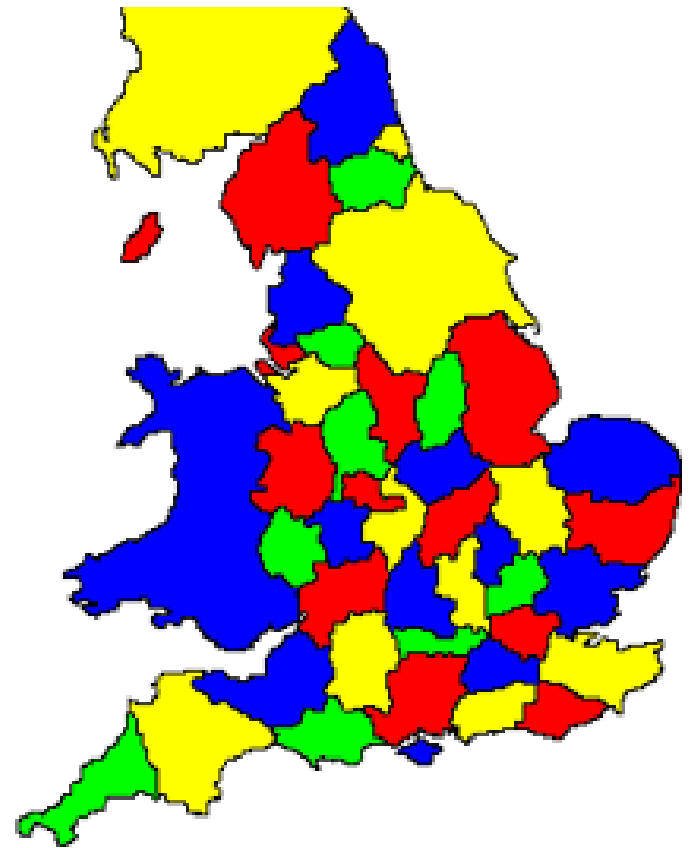


Słowo „graf”



**James Joseph Sylvester
(1814 – 1897)**

Zagadnienie czterech barw



Zagadnienie czterech barw



Francis Guthrie (22.01.1831 - 19.10.1899)

Zagadnienie czterech barw



Guthriea capensis

Zagadnienie czterech barw



Erica Guthriei

Zagadnienie czterech barw

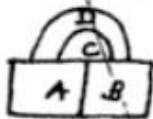


Augustus de Morgan (27.06.1806 - 18.03.1871)

My dear Hamilton

A student of mine asked me to day to give him a reason for a fact which I did not know was a fact - and do not yet. He says that, if a figure be any how divided and the compartments differently coloured so that figures with any portion of common boundary line are differently coloured - four colours may be wanted but not more - the following is his case in which four are wanted

A B C D are names of colours

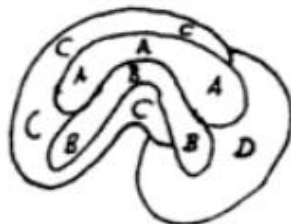


Query cannot a necessity for five or more be invented for as I see at this moment, if four ^{distinct} compartments have each boundary line in common with one of the others, three of them include the fourth, and prevent any fifth from connection with it. If this be true, four colours will colour any possible map without any necessity for ~~the~~ colour meeting colour except at a point.

Now it does seem that drawing three compartments with common boundary A D C two and two - you cannot



make a fourth true boundary from all, except by including one - But it is tricky work and I am not sure of all conclusions - What do you say? Had he noticed it, if truly been noticed? My pupil says he prepared it in colouring a map of England.



B is included

The more I think of it the more evident it seems. If you retort with some very simple case which makes me out a stupid animal, I think I must do as the Pythons did. If this rule be true the following proposition of logic follows

If A B C D be four names of which any two might be confounded by breaking down some wall of definition, then some one of the names must be a species of some name which includes nothing external to the other three

Yours truly

De Morgan

T. L. B. T.
Oct 23/52.

Zagadnienie czterech barw



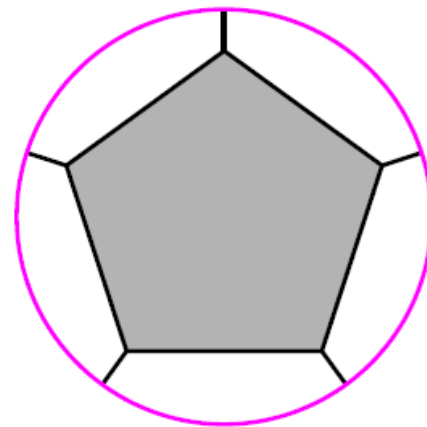
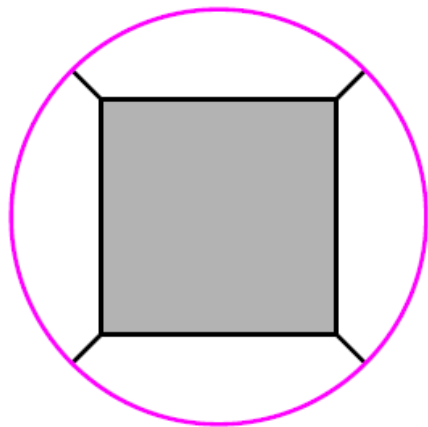
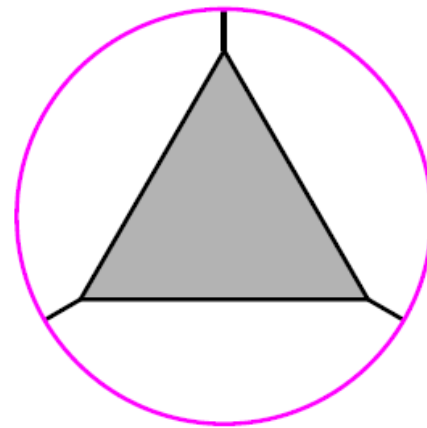
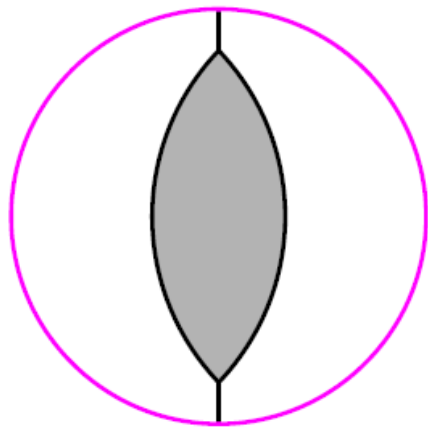
Alfred Bray Kempe (06.07.1849 - 21.04.1922)

Zagadnienie czterech barw

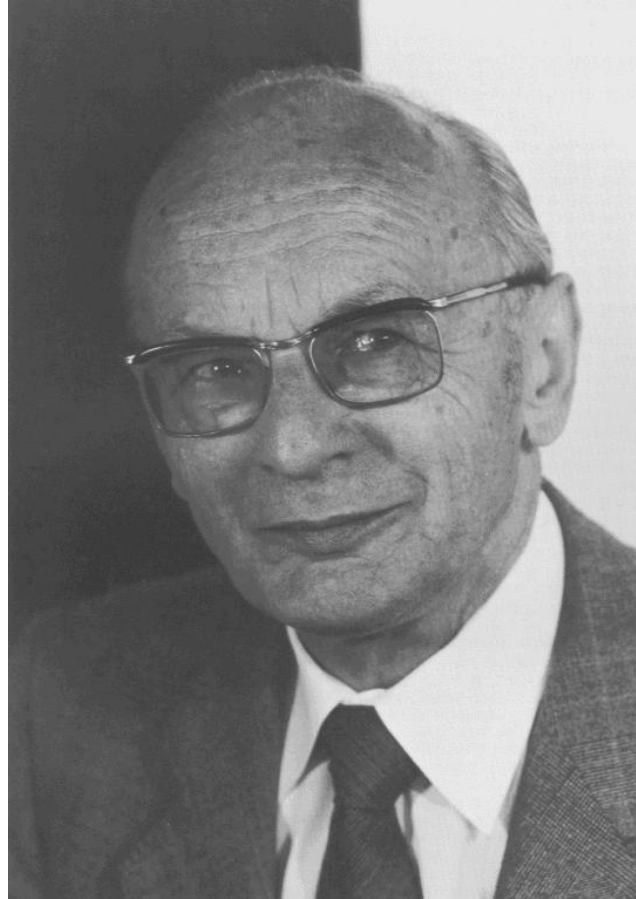


Percy John Heawood (08.09.1861 - 24.01.1955)

Zagadnienie czterech barw



Zagadnienie czterech barw



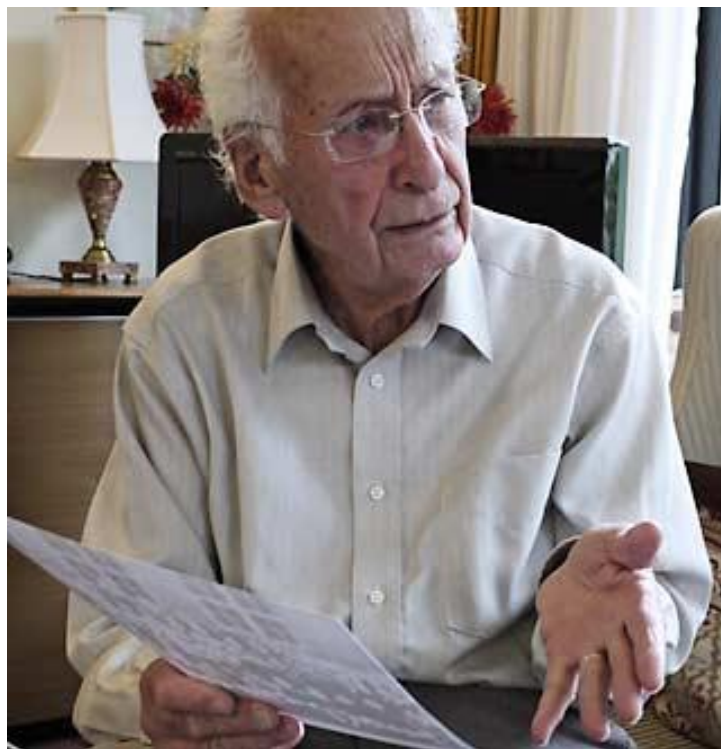
Heinrich Heesch (25.06.1906 - 26.07.1995)

Zagadnienie czterech barw

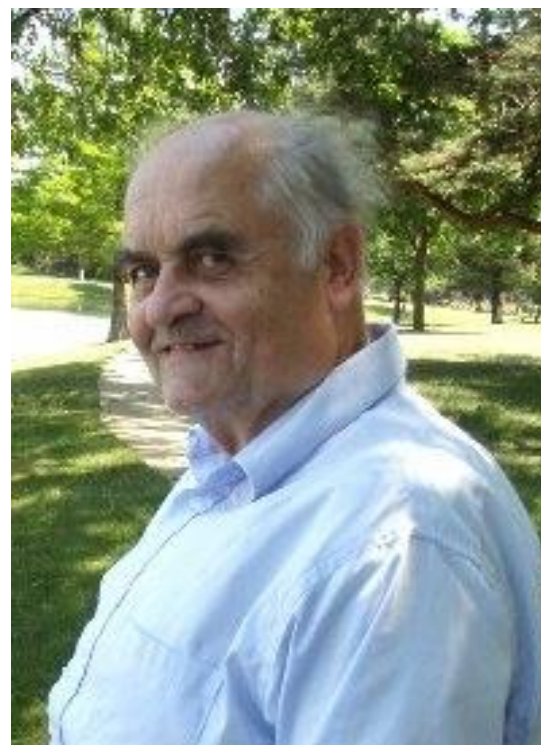


Kenneth Appel (08.10.1932)
Wolfgang Haken (21.06.1928)

Zagadnienie czterech barw



Kenneth Appel
(08.10.1932)




Wolfgang Haken
(21.06.1928)

„Teoria skończonych i nieskończonych grafów”



**Dénes König
(1884 – 1944)**



„Teoria grafów więcej
zawdzięcza kontaktom
międzyludzkim, aniżeli
związkowi człowieka z
naturą.”

Bibliografia

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