Golab's theorem

Canonical name	GolabsTheorem
Date of creation	2013-03-22 16:50:33
Last modified on	2013-03-22 16:50:33
Owner	Mathprof (13753)
Last modified by	Mathprof (13753)
Numerical id	7
Author	Mathprof (13753)
Entry type	Theorem
Classification	msc 46B20

Theorem. Let D be the unit disc of a Minkowski plane and let $\ell(\partial D)$ denote the http://planetmath.org/LengthOfCurveInAMetricSpaceMinkowski length of the boundary of D. Then $6 \leq \ell(\partial D) \leq 8$. The lower bound is attained if and only if D is linearly equivalent to a regular hexagon. The upper bound is attained if and only if D is a parallelogram.

Note that 1/2 the perimeter of the unit disc is a constant between 3 and 4. The special case of the 2-norm yields a constant, which is known as π. So Golab's theorem is that "pi" for a Minkowski plane is always between 3 and 4.

References

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