Problem Samples

Maximum of a Polynomial
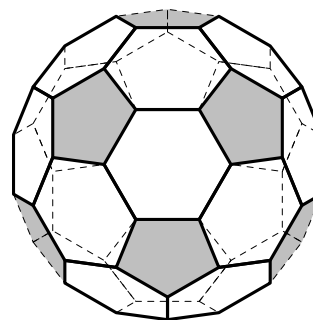
Compute the maximum of the polynomial $p(x) = 4x - 6x^2$.

$\max_x p(x) = ?.??$:

   check

Seams of a Soccer Ball[1]

Assume, contrary to Sepp Herberger's[a] statement, "The ball is round", that a soccer ball is a polyhedron. Determine the length L of an edge for a ball with radius 15 cm of the circumscribed sphere.

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[a]a famous German soccer coach

$L = ?.??$ cm:

   check

Click on the field adjacent to the $\boxed{\text{check}}$ - box and type your answer, replacing every question mark by a character (digit or letter). Convert your result to a decimal, truncated to the number of digits indicated. For example,

$$2/3 \to 0.6666\ldots \xrightarrow{?.??} 0.66, \qquad \text{answer}: \boxed{066}.$$

Note that the period is omitted; only the characters corresponding to the question marks are typed.

To verify your answer click on $\boxed{\text{check}}$ which results in the message **correct** or **false** (the latter possibility to be avoided!).

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[1]too difficult? $\to$ cf. Aufgaben und Lösungen zur Höheren Mathematik 1, for the solution