of \( a \) and we want to find \( z \) so that \( a \) is a maximum.

We then have an expression for \( a \) as a function

\[
\frac{(x - 1)^{\frac{1}{2}}}{(x + 1)^{\frac{1}{2}}}
\]

the integral square. Using elementary trigonometry, we can calculate the

area of a triangular section as \( \frac{1}{2} \sqrt{(x - 1)} \) and the area of a trapezium

The integral square. The area of a square is the sum of four congruent

Trapezium. The surface area of a unit cube is \( 6 \times 1 = 6 \) units. The surface area

Let the length of the side of the inner cube be one unit and the

square of the length of the side of the wire cube.

be difficult to find the ratio of the length of the side of the inner

surface with such a pretty solution on the wire cube. It would not

mathematical solution of particular cases.

like the soap film experiment just described, to gain insight into the

the Italian physicist Joseph Polera (1801–1883) who conducted experiments,

bounded by a given closed surface in space is called Plateau’s problem, after

The mathematical problem of finding the surface of minimun area

The wire frame is that it is the surface of minimum area bounded by the wire

The property of mathematical interest in this soap film on the

between the wires in this pattern:

the solution you have a soap film forming a "plane"

one corner into a soap film solution. When you extract the frame from

take a wire forming a cube and lower it by a string tied to

and misleadingly sticks, University of New England.

(1) P. Cotes, University of Newcastle.

THE SOAP FILM EXPERIMENT WITH A CUBE
The smallest concentric circle has radius \( \frac{\sqrt{3}}{3} \).

Check with vertices of an equilateral triangle of diameter 2.

**Solution to "Diameters"

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Sides and the "crepeza" are not quite plane:

is not quite this. Actually, the inside "square" is slightly bowed at the plane surfaces. We have found x under the assumption that the soap film consisted of a simple mathematical model: that the soap cube with the soap film.

Our physical situation, that is, the wire cube with the soap film, suggested a simple mathematical model.

What has gone wrong?

Try to calculate solutions to produce the 120 angle. What is the correct to the decimal places. But you could hardly call this a nice solution.

so, to a solution \( x = 120° \). Then, find \( x > 0 \), \( x = 120° \). \( x > 0 \), \( x = 120° \). \( x > 0 \), \( x = 120° \).\n
especially if we have a programmable calculator. We find that the mathematization, solved earlier on page 37, and there it is said in an impression.

Now this problem is discussed in R. Proctor and H. Robins. What is the equality easy.

But in this day of pocket calculators, we do not despise at all.

\[ 0 = \frac{3 + x^2 - x}{(1 - x)^2} + x + x - x^2 + x; \]  

\[ x^2 - x = (x), x \]

then \( x \) is the solution of the equation:

Using the differential calculus, we find that for \( x \) to be a minimum