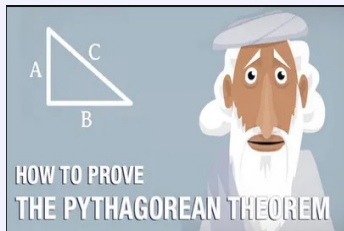


OMM - Dimensiona analiza

April 1, 2021

Pitagorina teorema

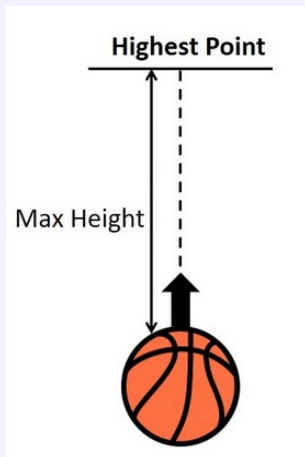


93 dokaza Pitagorine teoreme

<https://www.cut-the-knot.org/pythagoras/index.shtml>

Dokaz 94:

Koristeći dimenzionu analizu dokazati Pitagorinu teoremu.

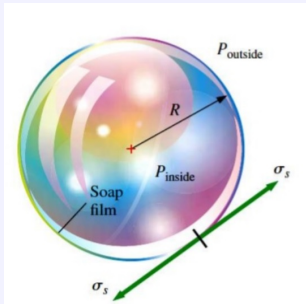


Lopta mase m se baca vertikalno u vis početnom brzinom v .

Pomoću dimenzione analize pronaći zavisnost maksimalne visine h od ovih podataka.

Iz tanke cevčice širine d polako ističe tečnost formirajući kapljice.

Dimenzionom analizom utvrditi oblik zavisnosti težine kapljice W od prečnika d i površinskog napona tečnosti σ .



Pravimo balončice od sapunice.

Dimenzionom analizom utvrditi oblik zavisnosti razlike u pritisku (pritisak u balonu - atmosferski pritisak) od prečnika balona i površinskog napona.



Treba da ispečemo ćurku.
Znamo da smo pile od 2kg
ispekli savršeno za 2h.

Koliko vremena treba u is-
toj rerni da pečemo ćurku od
10kg?



"[...the height of my body...exceed theirs in the proportion of twelve to one,] His Majesty's mathematicians concluded from the similarity of their bodies, that mine must contain at least 1724 of theirs, and consequently would require as much food as was necessary to support that number of Lilliputians."

Koliko je Gulliver trebalo da jede?