

Tough Nut to Crack – Complex Numbers I:

To be submitted by midday Thursday 30th April 09.

The prize is a book recommended on second year Mathematical Techniques 2 module.

Show that

$$\frac{1 + \sin(\theta) + j \cos(\theta)}{1 + \sin(\theta) - j \cos(\theta)} = \sin(\theta) + j \cos(\theta)$$