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Research Article

RUSHO-RAMANUJAN FOURIER SERIES1

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ARTICLE INFO

Article History:

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Keywords:

1. Here Integration will BE USED BY this symbol Integrate()
2. To Express Power The Symbol '^" will be used
3. The symbol pie is expressed as pie
4. Sigma notation is Expressed AS SIG()

ABSTRACT

In the Present Realm of Mathematics the Most Beautiful and Exciting Thing Is Infinitive, Convergence Series. When Ramanuzan Was Young He Plays With Series And Make New New Series. In This Paper I Have Introduced A New Point of View of Convergency of Pie. We will first prove 2 Basic Theoremas Using Fourier Analysis Then We Sum Up This And Find The Value of Pie. And After That We Will Put It In The Ramanuzan Series And Make A Totally Different Series. Finally. This Paper Will Be Finished By A Open Question. Those Who Will Find the Answer, They

INTRODUCTION

Q(1) Find the fourier series expansion of f(x)=X in the interval (-pie,pie) Prove using fourier series Let f(-x)=-x be a odd function . We know that for odd function fourier series is
F(x)= SIG(n(1->infinity))b_n sin-nx----------(1)

Here

B_n=2/pie [Integrate(0->pie) f(x) sin nx dx=2/pie(-pie [cosn*pie/pie)=-2/n (-1)^n+1— (2)=2/pie(-pie cosn*pie/pie)=-2/n*(-1)^n+1 By summing up we get =>
F(x)=x=2[sinx-sin2x/2+sin3x/3-sin4x/4+------___]

Here x=pie/2 is the function evaluated
F(x)-=pie/2=2[1-1/3+1/5-1/7+1/9-..+----------2)

Then the series we find is

1-1/3+1/5-1/7+1/9+----------=Pie/4

Again the finction f(x)=pie/4 is is evaluated we find :=
Pie/4=2[1/root2-1/2+1/3root2+1/6-..+..-+++) Pie/8=1/roo2 (1+1/3-1/5- 1/7+1/9+1/11+.....)=pie/4
The series we found is

1+1/3-1/5-1/7+1/9+1/11----------=pie/root(8)

After summing up both equation we find : [Pie-=2*2root(pie)-4*root(pie)]/8root(2)=1 or pie = 16*root(2)/2*root(2)-4

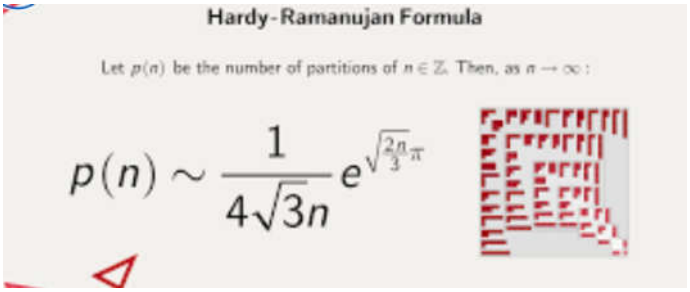
From Ramanujan's series we find: 2*root(2)/99! Sig(k->0-infinty)(4K)!(1103+26390k)/(k!)^4(396)^4K

=(2*root(2)-4)/16*root(2)

Here it is the broken English Rusho Rmanujan series

The open problem andabstract

We all know the following Ramanujan - Hardy Partition formula



Src: https://www.newscientist.com/article/dn20039-deep-meaning-in-ramanujans-simple-pattern/

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Can anyone tell me What if We put the negative value of n . Will the formula work for negative values . Will this formula wrok like minus 121 is a number . How many ways it can be partitioned . If The reader knows the anser then please contact with my website :rusho.org or email : rusho.ali17@gmail.com

Reference

1. Ramanujan's notebook :3
2. https://gpuzzles.com
3. https://img1.wsimg.com/blobby/go/c2405c6f-f01b-490d-b527-b0d24a6937c5/Torus%20mechanics%20-1.pdf
4. https://www.google.com/search?client=opera&q=Applied+Iterative+method&sourceid=opera&ie=UTF-8&oe=UTF-8
5. Applied Iterative method https://www.google.com/search?client=opera&q=Applied+Iterative+method&sourceid=opera&ie=UTF-8&oe=UTF-8