PartialSum.Howard

ehoward2

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1 My Partial Sum

$$\sum \frac{\sqrt{x+3}+7}{\ln x+3}$$

2 Convergence or Divergence?

First Partial Sum- I think that the first partial sum diverges because when you look at the first and last 15 terms the numbers are still increase which leads me to believe that the function diverges.

Second Partial Sum- I think that the second partial sum converges to somewhere around 1.02. When looking at the first and last 15 terms of the sequence they are all around 1.01 something so that leads me to believe that they all converge to 1.02.

Third Partial Sum- I think my partial sum diverges. When you look at the first and last 15 terms of the sequence the number are constantly increasing leading me to believe that the function is diverging.

3 The amount of terms

I use 1000 as the amount of terms because then I was getting a broad enough range of terms while not making it to much.

4 My Partial Product

$$\frac{x^2+1}{x^3+3}$$

5 Convergence or Divergence

First Partial Product- I think that the first partial product diverges. When you look at the last 15 terms they all say infinity which means it goes off to infinity.

Second Partial Product- I think that the second partial product converges. When looking at the last 15 terms they all say zero which leads me to believe it converges to 0.

Third Partial Product- I think that the third partial product diverges. When looking at the last 15 terms of the sequence they all say infinity which means it diverges to infinity.