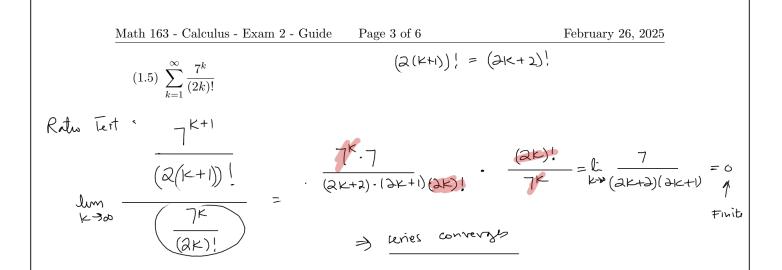
Math 163 - Calculus - Feam 2 - Guide Name:  
February 26, 2025  
Show your work to receive full credit.  
1.(1.1) Indicate absolute convergence, conditional convergence or divergence  

$$\sum_{k=2}^{\infty} \frac{7k^2}{7k^3} + \sum \frac{5k\sqrt{k}}{7k^3} = \sum \frac{5k^{3/2}}{7k^3} = \sum \frac{5}{7k} \frac{5}{7k} \qquad (mvergen + 1 e^{-\frac{3}{2}} 2^{-\frac{1}{2}})$$
For large  $k = \sum \frac{5k\sqrt{k}}{7k^3} + \sum \frac{5k^{3/2}}{7k^3} = \sum \frac{5}{7k^{3/2}} = \sqrt{k}$ .  
since the gives acress its conduct above to a  
convergent series. It must converge too  

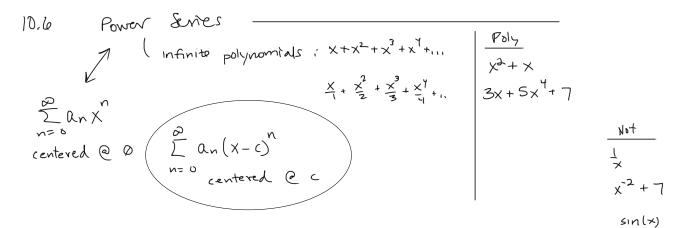
$$(1.2) \sum_{k=1}^{\infty} \frac{(-1)^6}{\sqrt{2}k + 11} = \langle -\frac{5}{7k^{3/2}} - \sqrt{k} | k \rangle$$
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$$(1.2) \sum_{k=1}^{\infty} \frac{(-1)^6}{\sqrt{2}k + 11} = \langle -\frac{1}{2k} + \frac{1}{2k} + \frac{1}{2k} + \frac{1}{2k} + \frac{1}{2k} = \frac{1}{2\sqrt{2}k} + \frac{1}{2k} + \frac{1}{2k} = \frac{1}{2\sqrt{2}k} + \frac{1}{2k} = \frac{1}{2k} =$$



Prove the following statement: (1.6) If  $\sum a_n$  converges, then  $\lim_{n \to +\infty} a_n = 0$ 



Most of the functions you (ever) seen can be expressed as power series

Use Rate Test to show the serves converges absolutely,  

$$\int_{n=0}^{\infty} \frac{(-1)^{n} \chi^{2n+1}}{(2n+1)!}$$
Therement  $\chi^{2(n+1)+1}$ 

$$\int_{n=0}^{\infty} \frac{(-1)^{n} \chi^{2n+1}}{(2n+1)!}$$
Therement  $\chi^{2(n+1)}$ 

$$\int_{n=0}^{\infty} \frac{(-1)^$$