$= \frac{n}{(n+1)(n+2)(n+3)} = \frac{A}{(n+1)} + \frac{B}{(n+2)} + \frac{C}{(n+3)} +$ 

 $= \frac{1}{(n+1)(n+2)(n+3)} = \frac{A(n+2)(n+3) + B(n+1)(n+3) + C(n+1)(n+2)}{(n+1)(n+2)(n+3)} + \frac{1}{4}$ 

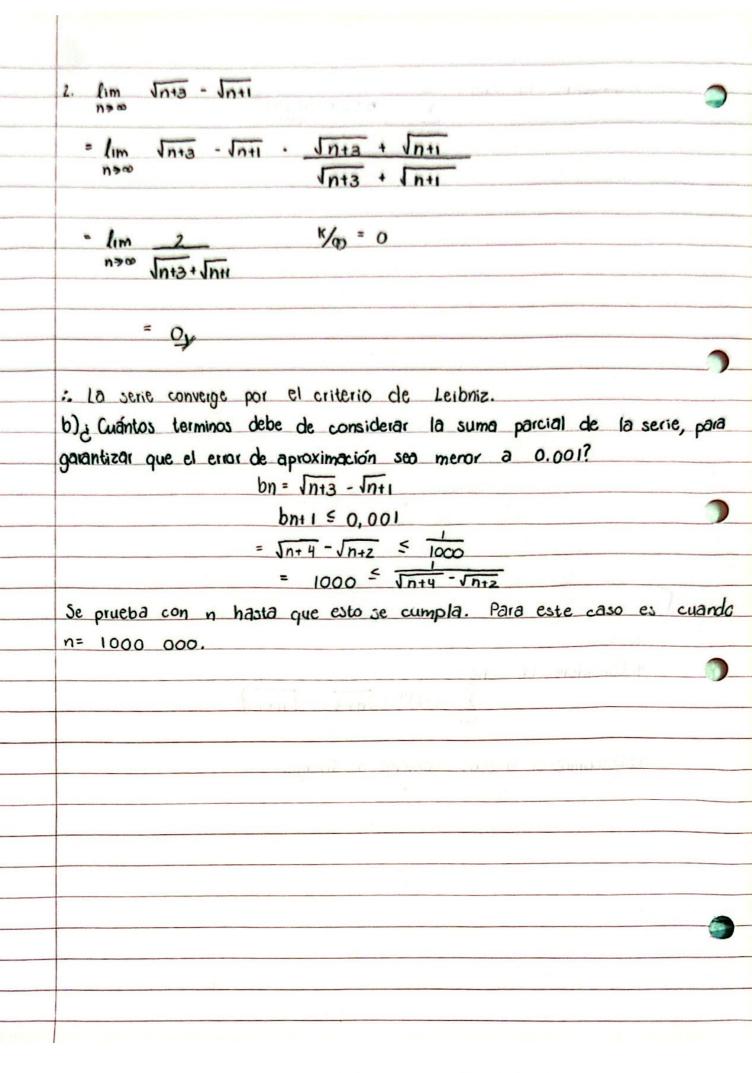
3. Considere to some 
$$\sum_{n=1}^{\infty} \frac{n(2+3cn(n))^n}{q^{n+1}}$$

$$= 2-1 \le 2+3cn(n) \le 1$$

$$= (1)^n \le (2+3cn(n))^n \le (3)^n$$

$$= (1)^n \le (1+3cn(n))^n \le (1+3cn(n))^n$$

$$= (1)^n \le (1+3cn(n))^n \le$$



5. Determine el intervalo de convergencia de la serie de potencia.  $\lim_{n \to \infty} \frac{(n-1)! (2x+3)^{n+1}}{(2n+5)! (2n+5)!} = \frac{(2n+5)!}{(2n+3)!} = \frac{(2n+5)!}{(2n+5)!} = \frac{(2n+5)!}{($ 3.5.7. ... (2n+3) 4 · lim (n-1)(n-2)((2x+3))·[3·5·7·...(2n+3)]

n>∞ [3·5·7···(2n+5)] (n-2)! (2x+3) = |2x+3|  $\lim_{n \to \infty} \frac{(n-1)[x\cdot 5:7\cdots(2n+3)]}{[x\cdot 5:7\cdots(2n+5)]}$  $= |2x+3| \lim_{n \to \infty} \frac{(n-1)}{(2n+5)}$ = |2x+3| < 2 = -2 < |2x+3| < 2 = -5 L 2x L-1 : 7-5/2, -1/2[ es el intervalo de convergencia.