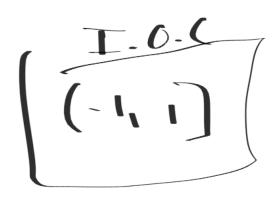
## MATH 242 - WS10

## 03/28/2024

1. Find the interval of convergence of the power series:

(a) 
$$\sum_{i=1}^{\infty} \frac{(-1)^{n+1} x^n}{\sqrt[3]{n}}$$



 $\sum_{n=1}^{\infty} \frac{(-1)^{n-1}x^n}{n5^n}$   $\sum_{n=1}^{\infty} \frac{(-1)^{n-1}x^n}{n5^n}$   $\sum_{n=1}^{\infty} \frac{(-1)^{n-1}x^n}{n5^n}$   $\sum_{n=1}^{\infty} \frac{(-1)^{n-1}x^n}{n5^n}$ lin anil = 1x1 < 5 0x=5 & (-1) 1/5 X F (-2 , 5) Q = -5  $\frac{2}{5} \left(-1\right)^{2} h^{-1}$   $\left(-5, 5\right)$  $\lim_{n\to\infty} \frac{a_{n+1}}{a_n} = \frac{x^{2n+2}}{n+1} - \frac{h!}{x^{2n}}$  $=\lim_{n\to\infty}\frac{1}{n}\left(x\right)^2=0$  $\left( -\frac{1.0.}{\times} \right)$