

 $an = \frac{n}{2n}$ $\lim_{N \to \infty} \frac{\alpha n+1}{\alpha n} = \lim_{N \to \infty} \frac{n+1}{2^{n+1}} \frac{2^n}{n}$ sit by nother test, $\frac{2}{2}$ on converges (-DY Maybe altourary series test.

Not decreasely, court use afternoony series test. 2) Divergence theorem; if I'm oun to, then seves diverges an = (1)"

 $an = \frac{1}{4\pi}$, $al = \frac{1}{4\pi} = 1$, $al = \frac{1}{42} = \frac{1}{42}$

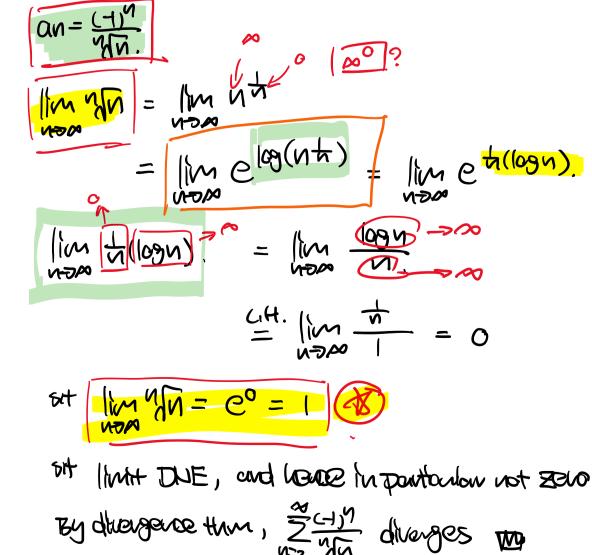
 $(\alpha 6) = \frac{1}{646}$ $(\alpha 6)^6 = (\frac{1}{646})^6 = \frac{1}{6}$

ort 026 < 066

st 02 < 06

Shore Ciz, O6 one posine,

 $(\alpha_2)^6 = (\frac{1}{\sqrt{2}})^6 = (\frac{1}{\sqrt{2}})^2 = (\frac{1}{2})^3 = \frac{1}{8} < \frac{1}{6}$



J. $\frac{2}{\sqrt{N}} (\sqrt{N} - 1)^{N}$

Root test, | linear Nan = | linear (NN-1) = 1-1=0<1, sit convages $N \to \infty$

3 konto rest? | MN - 1) MT = | MM (N+1) MT = | MM - 1) MT | MG-N

CROOT test an = (MM-1)M