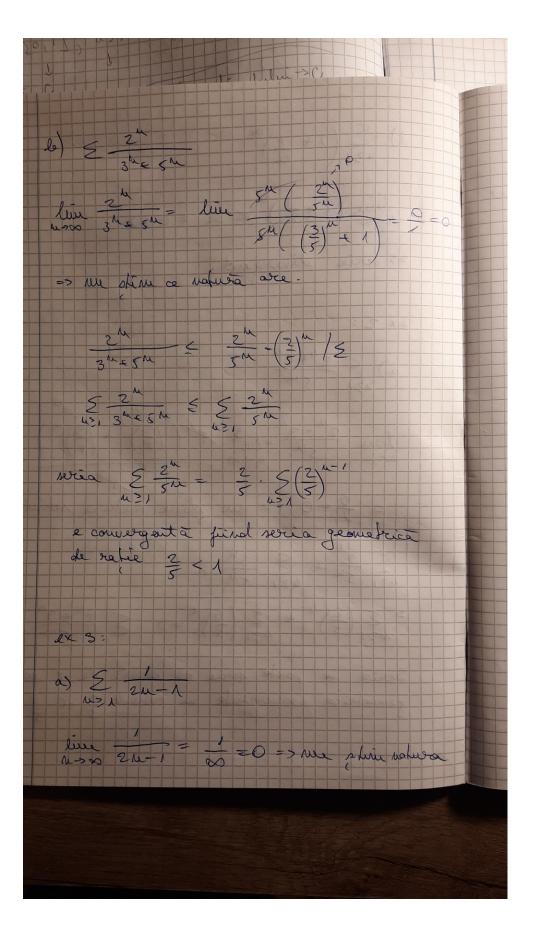
Tema 5- servi de un mere reale ex 1: line 11 = line 11 (1 + 2)
11 - 1 + 0 =)
11 - 1 + 0 =) => serie divergenta. b) 5 / Www. Calculane lu linu war = lim lu - = = line lu _ = line ku u m = lim (- h) lu h. s lim lu h L'H = lin - 1 = 5 = 0

lu line 1 = 0 => => line /== 1=> => serie divergenta. c) & 1 (& 1 b) & 13 (Stem ca wh > u! / ()-1 1 / 1/2 fie en - / yn - whi Exm B => Eyn = E 1/5m 8

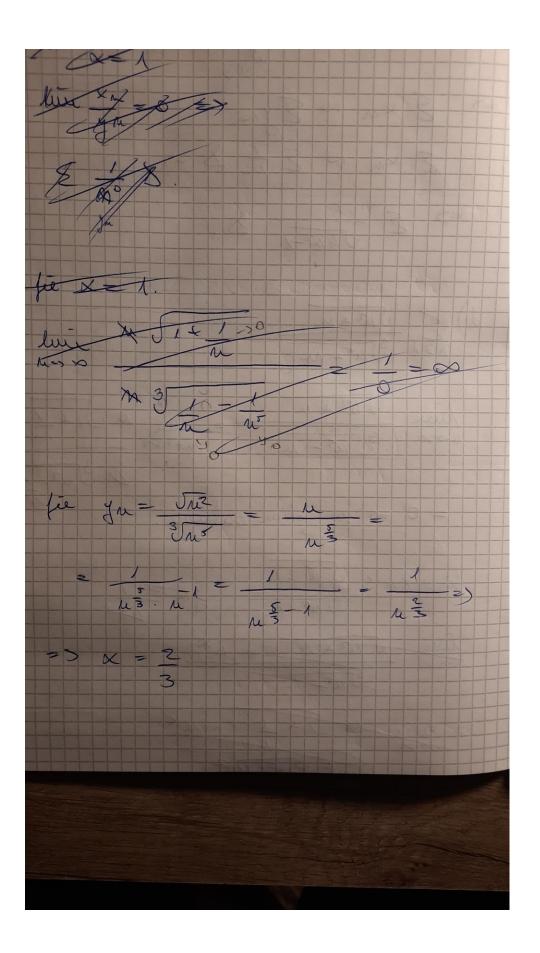
d) 2 (1+1/m) hos (1 e m) = 2 € 0 =) 20 serie divergenta a) E 2he3h $\lim_{n\to\infty} \frac{2^n + 3^n}{5^n} = \lim_{n\to\infty} \frac{3^n}{5^n} \left(\left(\frac{2}{7} \right)^n + \left(\frac{3}{5} \right)^n \right)$ 2 2 = 0 => un stine natura serini 2 2 3 4 2 3 M = = \(\frac{2}{5} \rm \(\frac{5}{5} \rm \) = \(\frac{5}{5} \rm \(\frac{5}{5} \rm \) = \(\frac{5}{5} \rm \(\frac{5}{5} \rm \) = \(\frac{5}{5} \rm \(\frac{5}{5} \rm \) Seria re poate soire ca suma de 2 soiri geométrice convergente en trafiile ? sí 3



£ 1 2 m-1 > £ 2 m 5 1 2 2 1 12, 2h-1 2 2 2, h Shin ca 5 1 5 for X, Am gains o serie & mai mira de cat seria & 1 2) \(\frac{1}{2}\lambda - \lambda \) live (21-1)2 = 0 => Me shire natura 12 / (2h-1/2) y 1 = 1 / (2h-1/2) y 1 = 1/2 x Calculatie line = line (20-1)2. 11 × - lun 12 - lun 12 412 4161

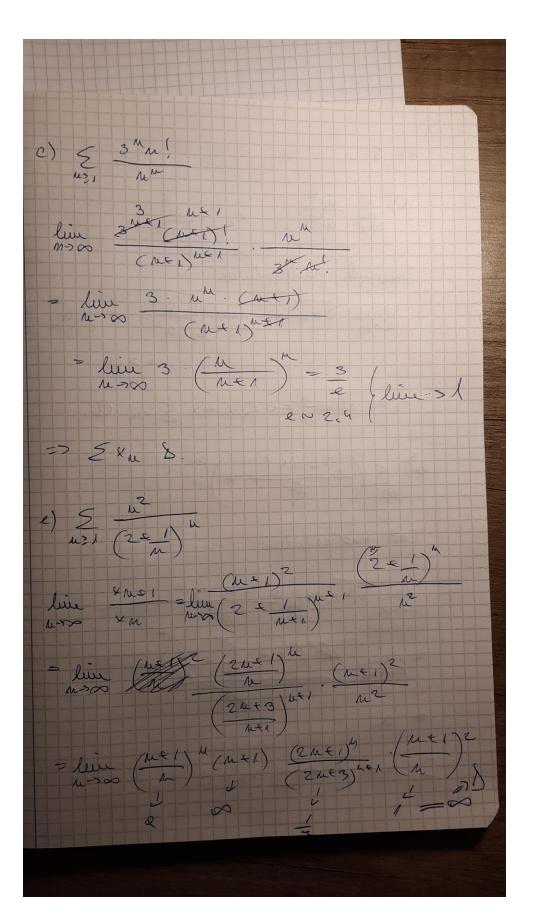
Fixalle X=2=> $\lim_{N\to\infty}\frac{n^2}{n^2\left(4-\frac{n}{n}+\frac{1}{n^2}\right)}=\frac{1}{n}\in\left(0,\infty\right)$ => ExunEym 5 -1 N 5 /2 C => 27 E / (24-1)2 C. c) 5 -1 uz1 54m2-1 line = 0 => me shine natura fre x n = 1 / y n = 1

fixau x=1 => $= \frac{1}{2} e(0 cos) = \frac{1}{2} e$ => 5 1 5 d) 5 JN2 = N N31 35 U5 - N DX 3 N2-1-10 = 0 => un olim natura. fre & n = Juzan ym 1 Luc Jazza . MX > lui y Ji & 100 . 11 x



line ×m = line Util+m m = 3 a-> xx y m n-> xx 3 fe 5 m = live 5 12 + W 1 (15 - N) 1 - 2.8 · line 1 5/ + 1 3 M5. M 2 & M. M 2 = line h J 1 & 1 = / e (o, \infty) => => 5 × m ~ 5 ym Egn = E / X = 1 => Eym 8. 57 E Xm S.

xu = 100 4 100 the val = tun and look at 1 = 0 <1 => Exu couvergentà b) 5 2 m.! line xne / = line zhet)! mh = lin 2. m. (m+1) m-ss (m+1) m+1 - line 2. (nei) nei = 2 line My (MEN) MADO (MEN) MEN = 2 line n= = = < 1 => C



a) Sam × m = am Conternal radicalului lier Jen = lier and = lier a 220 => line = 0 < 1 => 5 km C. la) 5 (m2 & m & 1) m Crit radicalului: lim 15 x m = lim n2 e m e 1 a = line 112 (1 + 120 = 1) a I a < 1 => 5 × m C

11 a > 1 => 5 x u S ill a = 1 = 2 ? Aven E (m2+ m + 1) m lie (n2+ ME) M= = line (1 = 1 = 1) h = line (1 + 1 + 1) the person $= \lim_{n \to \infty} \left(1 + \frac{n+1}{n^2} \right) \frac{n^2}{n^2}$ 2 lin x. n. 1 = e > A + 0 => E × m b

c) & 3^m uzl 2^mea^m line 3 m = ture So observa 3th 2 3th Lin 3 h $\frac{7}{2} = 3 = 1$ $\frac{3}{4} = \frac{3}{4} = \frac{3}{4$ $\lim_{M\to\infty}\frac{2^M\cdot\left(\frac{3}{a}\right)^M}{a^M\left(\frac{2}{a}\right)^M\cdot 1}=\frac{0}{1}=0=0$ -> me stim hahva

