	Dato
	IN. Primas Pay Lapican
	Nema: Prames Pay Lapian NPM: 140810210059 -A
	Slide: AL
	$ \sum_{n=0}^{\infty} \left( \frac{1}{\ln n} \right)^{n} \Rightarrow \lim_{n\to\infty} \left( \left( \frac{1}{\ln n} \right)^{n} \right)^{n} $
	n=( 'm(n)'
	h-to so
2.	$\sum_{n\geq 1}^{\infty} \left(\frac{h}{3n+2}\right)^n \Rightarrow \lim_{n\to\infty} \left(\left(\frac{h}{3n+2}\right)^n\right)^{1/n}$
	$\frac{1}{n+\infty} \left( \frac{n}{3n+2} \right) = \frac{n}{n(3+\frac{2}{n})} = \frac{1}{3}  \text{(convergen)}$
3.	$\sum_{n=1}^{\infty} \left( \frac{1}{2} + \frac{1}{n} \right)^{n} \Rightarrow \lim_{n \to \infty} \left( \left( \frac{n+1}{2n} \right)^{n} \right)^{1/n}$
	$= \lim_{n\to\infty} \frac{\pi(1+\sqrt[n]{n}) \cdot (1+\sqrt[n]{n})}{n+n} = \lim_{n\to\infty} \frac{\pi(1+\sqrt[n]{n}) \cdot (1+\sqrt[n]{n})}{n+n} = \lim_{n\to\infty} \frac{\pi(1+\sqrt[n]{n})}{n+n} =$
	n-ba 2r 2 2 2
<u>4.</u>	$ \sum_{n=1}^{\infty} \left(\frac{3n+2}{2n-1}\right)^{n} \Rightarrow \lim_{n\to\infty} \left(\left(\frac{3n+2}{2n-1}\right)^{n}\right)^{n} = \lim_{n\to\infty} \frac{3n+2}{2n-1} = \lim_{n\to\infty} \frac{n(3+\frac{2}{n})}{n(2-\frac{1}{n})} $
	$\frac{1}{2} = \frac{1}{2} = \frac{1}$
	2-0 2
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1.	NO ,
	η=3 h²-ς
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	$n^2-5$ $n^2$
	n to
	n <sup>2</sup> h (1 n <sup>2</sup> ) (1 n) (-0
	n=3 n2 n2-5
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a con	The state of the s
$\frac{1}{n^2+5}$	
an	
n2ts noi n	
karena bn > an dan bn Pivergen, maka 30	n Divergen
n=1 n	245
7	
) 5° 5° n	
in chit	
an 2 D	
	97
lim ant = 5 nt n1 = 5 = 5 = 0	9 - 18-3
n=00 an (nH)! 5" n+1 00	
barena P. (Pzo), PLI, malea & 5" (con	vergen
nel ni	- agen
A.) 2 1	
$n=3 (n-2)^2 n^2-4n+4$	4 2 1
an= 1 , bn = 1	. 1
$n^2 - 4n + q$ $n^2$	
	2 2 10
$n \rightarrow \infty$ by $n^2 \left(1 - \frac{A}{n} + \frac{A}{n^2}\right) \left(1 - \frac{A}{\infty} + \frac{A}{\infty}\right) \left(1 + o - o\right)$	(
larena L=1 dan 3 n konvegen, maka 5	1 4
2	$(n-2)^2$ konvergen
	5 (112)
$\frac{3}{2}\frac{3}{2}e^{n}+e^{2n}$	
$\frac{2}{n!} \frac{1}{1} e^{2n}$	
16	
12 m	1.1
zeth 2	
Carena 3 3eh + e2" +0 maka 5 3eh +e	211
$\frac{2}{nz_1} \frac{2e^{2n}}{2e^{2n}}$	
	11177
	and the second s
	- 17
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6.	\frac{1}{2} \left  \left  \left  \frac{1}{2} \left  \left  \frac{1}{2}	
	n=2 \sqrt{n} 6-000 2 1 12	
	$\frac{1}{n = 2 \sqrt{x}} \int_{0}^{\infty} \frac{1}{x} dx = \int_{$	iva-
	2 X	J
7.	σς n <sup>n</sup>	
	not ni	
	$an = n^n$ , and = $(n+1)^n$	
	n( (nul)!	
	lim (nH) n! - (n+1) - (n(1+1/n)) = e	
	n-200 (NH)! nn nn n	
	karena Po>1, maka doret & nn Dirargen	
	h=( n!	V.
	Slide: 48	
1.	00 (-1) nti 2	
	n=1 3n+1	4.
	an = 2, $ant = 2$	1
	3n+( 3n+1	4
	an - 2(3n+4) - 3n+4	
	ant 2(3n+1) 3n+1	7
	$\lim_{n \to \infty} a_n = \lim_{n \to \infty} \frac{2}{n} = \frac{2}{n} = 0$	
	n-000 n-000 3n+1 00	
	lee dea syarat terpenthi maka & (1)nH 2 kensurgen	
	ne i 3nH	
2,	5 (-1) n+3	
	ny nth	
	an = h+3, an+ = n+a, n+4, n+4	
	$n^2 + \eta$ $(nH)^2 + \eta$ $n^2 + 2\eta + 2\eta + 2\eta$	
	an: = (n+3) (n2+3n+2)	
	and (n2+n)(n+a)	
	$\lim_{n \to \infty} a_n = \lim_{n \to \infty} \frac{n+3}{n} = n(1+\frac{3}{n}) = 1+0 = 0$	
	now noth m(n+1) as	
	Karcha kedua syarat terpenuhi maka & (-1) n+3 Konverojen	
	TIABA SHAKTI MAKMUR n=1 n2+n	

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3.	8 (-1) nu
	ny M.
	n 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	n( (nu)!
	$a_n = n^n(nri)! = n^n / n^2$
	ant n! (nt) ne (nt) n (nt)
	karena Syarat a-Sudah tilak krponuhi, maka & (-1) "In Dwargen -
	an = 1 (nH) (nH)!  an = n^{n}(nH)!  anH = (nH)   (nH)   (nH)   (nH)   (nH)    karana Syarat a-Sudah tilak kerpanuhi, maka & (1)   (nH)
A	₹ (-1)" <u>π</u>
=	nac 3h
	an = n, $an H = nH$
	, ,
-	$\frac{a_n - n!}{n} = \frac{3n}{3n}$
	JAH 3" ALI MH
	$\frac{1}{n-960} \frac{1}{2^n} - \frac{1}{n-900} \frac{1}{2^n} \left( \frac{1}{n} \right) = \frac{1}{2^n} \frac{1}{n} \frac{1}$
	n-spe zn n-boo 3n (n(3) 00
	forma kedia syarout terpanuhi, maka $\frac{8}{5}(-1)^n \frac{n}{n}$ (convergen
	hzt 3 <sup>n</sup>
\$.	$\infty$ $(1)^n$
5.	$\frac{2}{2}\left(-1\right)^{n}$
	n=1 n(nH)
$\overline{}$	$a_n = \frac{1}{2}$ , $a_{n+1} = \frac{1}{2}$
	$n(nu)$ $(nv)(n\pi)$
$\overline{\Box}$	an = 1 (m1)(n+2) = 11+2 >1
	ant n(nxi) 1 n
	$\frac{1}{n-b\infty} \frac{1}{n(n\mu)} = 0$
	1 . n
	karena kedua syarat sudah terpenuhi maka & (1) 1 konvergen
6	not mad
	nal yn
1	$a_n = \ln(n)$ , $a_n H = \ln(nH)$
T	Vn Vny
	TIARA SHAKTI MAYAND
1	RUMYAM ITYAHS ARAIT

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an - [In(n)][Vari] >1	
ant [In][ln(nt)]	1.
$\lim_{n \to \infty} \lim_{n \to \infty} \frac{1}{2} $	1.
n-000 /n 11-000 1/2/50 h /n	
karena kelua syarut terpenuhi, mala & (4) ntl In(n	) (convergen
Slide: 53	
1.   ° (-1)"	
n:( 3n+2	
$ u_n =1$ , $a_n=1$	- (
3n+2 3n+2	
lim (b) 1 dx	
b-D00 3x+2	. 1
lim 1 (1 dw = lim ln (v) 7b = lim	n (b) _ ln(i) -
b-600 3 1 0 b-500 3 1 b-500	٤ 3
= 60 - 0	- Divergen
· Uji DGT	
-an= 1, an= 1	
3ntz 3nts	
an - 3n+5 > (	
ante 3nt2	
lim an=.lim	
n-bas n-bas 3n+2	
karena 3 / Win   devergen, tetapi diyi bonvarga	n menyataban konveragan,
mala 5 (-1) konvergen bersyarat	
nzi 3n+2	
3.   ~ (-1)h / h)	
$\binom{2}{n^2}$	
Unzn, UntzhEL	
5n 5nH	
lie was not on not n(1+ /n) - 1	6 konvergen
now un sati n en en 5	` J
carera 3   Un   Konvergen maker (-1) tons	urgen mutlak
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4.	1/5 (-1) 1 en %   en
	n = n = n
	$a_{n+1} = e^{n+1}$ $a_n = e^n$
	ntt n
	hm ent n (e)(n) - e
	n-000 ny pn n(1+1/n)
	· Yi DGT
	an - en nH = nH,
	ann n enn (e)(n)
	karena go   Un   divergen, dan y DGT divergen, make go (-1)" e" divergen
	2 divergen, man 3 var strate 2
-	mal not n
2	5 (-1) 7
	n = 1 $n = 1$ $n = 1$ $n = 1$ $n = 1$
	$n^2+n$ $n^2$ $n\geq 1$ $n^2$
	Dari y banding biasa, &   Un   konvergen, maka & (-1) 1 bonvergen
	n=1 $n=1$ $n(n+1)$
	5 (-1) n+1 5 1 · vj.: DGT
6.	5 (-1) 1
	n=2 h nh nzz lh nh l an = [n+1] h [h+1] > [
	oo 1 - by integral ant n ln (n)
	2 n   n   1 - 1 - 0
	1 10/0 71 (1/1)
	b-000 2 x nx
	lim ( L d
	b-02 U
	lim In (Inx) ]b
	lim In Un X
	JZ
	$\lim_{n \to \infty} \ln (\ln b) - \ln (\ln 2) > \infty$ Divergen
	b-000
	Bari vji integral divergen namun gi DGT menyutalaan konvergen sehangga
	(1) konvergen bergyarat
	n = n / n(n)
1-	
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(Q.)	¿ (-1) hn = 5   hn
<u>.</u>	
	$\lim_{n\to\infty} \frac{\ln x}{\ln x} \frac{\ln x}{\ln x} = 2\sqrt{x} \ln(x) - \int_{-\infty}^{\infty} 2\sqrt{x} dx = \left(2\sqrt{x} \ln(x) - 4\sqrt{x}\right)^{\frac{1}{2}} \frac{dx}{dx}$ $\lim_{n\to\infty} \frac{\ln x}{\ln x} dx = 2\sqrt{x} \ln(x) - \int_{-\infty}^{\infty} 2\sqrt{x} dx = \left(2\sqrt{x} \ln(x) - 4\sqrt{x}\right)^{\frac{1}{2}} \frac{dx}{dx}$
	b-Do TR 2 X
	·
	an = [ln(n)] [JnH] >1
	ante $\sqrt{n}$ $(n (n+1)$ lim $\ln n$ $\frac{\sqrt{n}}{2} = 0$
	1 m /n 1 2 = 0
	maka ¿ (-1) In n konvergen bersyarat
	hoz vn
4	
TH	TIADA SHAYTI MAYANID