PROBABILITY & STATISTICS ASSIGNMENT # 3 Ho: U= 80, H: U < 80 Song cost of shoos \$80, So any cost less than 80 dollars. 2. d = 0.10, significance level, 8. n = 36, S = 19.2, $\bar{\chi} = 75$ 4. since applying & critical values since <-2.33 is rejection onea, Reject to and our z value z 71:5625; 5. We reget the . C. MPSO 0 = (88. 17 8 2 8 70. 71) 11=80 we do not reject the null hypothesis (Ho) -2.33. 6. The data praides syfficient evidence to support the researcher's claim since the average cost of men's attretic shoes is not less than, \$80° et 0.10 significance level. with speed to a cortes exty in 1. Ho: Sull = \$5700 (ang cost of fees at public college = \$6700) HI: 47\$5700 (ang NNNNN >\$\$700) $2. \alpha = 0.05$ sig. level. 3. n=36, 7=\$5950, 8=\$659. z test: (x-11 35950-5750) 250 20 20 20.28. 4. applying R value approach Accept P(17/228) -) 0.9887, 1.6 P (772.28) \$ 1-0.9887 20.0113 _ u=5950 since 0.0113 < 0.05, S. we reject to, it we reject now hypothesis. Signature.

E#TM3MMen22 5
02; (continued) 6. We conclude that the data provider sufficient
evidence to support the researcher's claim about any cost
of trition fee @ 4 year old public school to be greater
than \$5700 @ 0.05 sign Level.
. Mollo and and the way and confidence of the proof
O3. 1. Ho: $U = 8$ miles per hr = (speed of wind, $3 = 8$) H1: $U \neq 8$ miles per hr = (speed of wind may be > or < 8). 2. $V = 0.05$
Hi: U + 8 miles per hr = (speed of wind may be > or < 8)
2. 2 0.05
3. n= 32, \(\bar{\pi} = \textbf{8.2}\), 8=0.6
8/Jn 06 /32 × 1.89
4. applying P-value approach & potential o. of
P(Z<1.39) = 0.9706 × 0.00
P(Z71.89) = 0.0294. Right
P(2<-1.89& 271.89)= 0.0294 K2 - 4
7-test a) $\frac{1}{8}$ $\frac{1.89}{8.2-8}$ $\frac{1.8856}{8/5n}$ $\frac{1.89}{8/5n}$
5. we do not reject to null hypother's Ltto) provides 6. We conclude that the data provider sufficient evidence to support the researcher's claim that
6. We conclude that the data process (sufficient
evidence to support the researcher's claim that
the average wind speed in a certain city is 8 miles per hour at 0.05 significance level.
8 miles per hour & at 0.05 significance level.
(001315 7 0 00 001355 7 1111
Dy. 1. The # 88-47
Ho: U, 2 U2 (both mean are equal)
H1: U, + 1/2. (N N r unequal):
2. \(\alpha = 0.05\).
3. n. = n2 = 50; 21=88.41, 22=80.61; 81=5.62, 82=4.83
Z-test; Z= (Z1-Z2)-(U1-U2) =(88.42-80.61)-(0) =>7.45
\(\(\delta\)^2/n_1) + \(\delta\)^2/n_2\) \(\sigma\) \(\sigma\)^2/50 + 4.83/50
Z. 7.45 0 > 811 010 -20012
S me reject the is we reject that shalls

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4. entappying critical value appro	ach:	مرادع لله	No cla	
Q x = 0.05 25 two tailed in	o; d2+0.025	Sco		0.005
@ P(Zep) => -1.96.	28. F. 1. 8 . S.	20.00	a	
So; either Pate-1.96 or &	271.96	oretro /	Re	jetijes
Since 7.45 > 1.96:	241811 + 02/26	100	2) /
5. We reject (Ho) null hypothe	esis.	-Zd/2	7/1/2	
6. we conclude that there is	sufficient	03/196	+1.96	
9. Europhysia cutical value appro- e x 20.05 25 two failed in el (tok) 25-1.96. So; either Patic-1.96 or 10 Since 7.45 > 1.96; 5. We reject (the) null hypother 6. We conclude that there is evidence to support the co	lain that	the mean'	are not e	qual
and there is significant	disance diffe	veuce in the	rates	at
0:05 sig. level.		4.2271	wais	
	len al	tosia,	ald . A	
Os. 1. Ho: 11 = 112 (both the	we some no . 8	snorts office	al .	
Him U. 742 Clock a	ie offered mon	no of she	ts)	
2. d 2 0.10 layer ton	d resulting	out la	,	
H ₁ : $u_1 7 \mu_2$. (boys a 2. $d \ge 0.10$ 3. $n_1 \ge n_2 \ge 50$; $\vec{z}_1 = 8.56$, Tr 2 7.94 ;	8 8, -3.	3.	
Z test = (8.56-7.94) - 0	0.9394	12221	Bridge Co	
Z test = (8.56-7.94) - 0	3 (109. 10	df = 14 .	1 10	62.
Zingo To To To	2 - 0 9394	al # 11	14	
4 . apply - value approach		. 50.0	= W . C	
e z-0.9394;	12 LOCAS P (0	.94)=00.8	2 69	× 20.10
since austrations	(Z70.94)	Accept	0	regent in
1-0.8269 0 0	1736 77 2	1		200
as \$ 0.1736 >0.10		14.8.7	Ž	Ex
5, we do not reject	rell hypother	12. (Ho).	de d	
6. We winelude that there	3 3		viee to	
somelade support the cla	in by resease	her that.	the college	e
	boys than		ilo	
00	12.26 32.26	10 c = 3 :0	348	
عدد عدد عدد الما عدد	alleged Dur topic	, whi is	cd >	
be provided sufficient endance	ab I see do	L sharmas	and)	
the any re of reference to neck	down what	with biological	ol .	
, bush - pie 20.0 3	10 E-31 of	leure ton	45	•
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De. 1. Ho: 11: 11: 11: 11: 11: 11: 11: 11: 11: 1
H: U, + U, 2000000 por habet out de 20,0 4
3. $n_1 = 50$, $n_2 = 72$; $s_1 = 7.35$, $s_2 = 4.81$; $\overline{x}_1 = 181$, $\overline{x}_2 = 176$.
42 Z test as (181-176) - 0 as 4.22.
J7.35/50 + 4.81/22 30.1 21. 1 sone
Z= 4.22. sealboard Dun Cold tister ste 2
4. applying critical value approach
4. applying airtical value approach \$4, => 0.025. \$24, => 0.025. \$ince 4.2271.96; \$5. We reject tho. 6. We conclude that there is -1.96 1.96.
70/2 >> -1.96, +1.96.
since 4.2271.96;
5. We reject to.
6. We conclude that there is _1.96
enough evidence to support the claim that the mean
any of two population is not equal.
S. n. = n. = 50; Z. = 8 SC . T. = 7.54 : 6; S. = 5.5
E test - (8.56-7.90) - 0 - 0.9394
07. 1. Ho: U= 16.3 (avg. no. of infection per week 2 16.3)
07. 1. Ho: $\mu = 16.3$ (avg. no. of infection per week 2 16.3) H1: $\mu \neq 16.3$ (avg. no. of $\nu \neq 16.3$).
2. x = 0.05. 3. n = 110 , T + 17.7 , SB = 1.8.
3. n=10, x+177 (58=1.8)
t test; t= x-d = 17.7-16.3 + 2.46
5 / To 28 61.0 1.8 / 10.0-1
t= 2.46. 01.0 < 08 F1.0 \$ 00
4. applying critical value approach. Decent to
4. applying cutical value approach. Accept the
1 1 2 10-12 9. Pejet
critical value > 0-2262, 2-262. Pegetho /
shre: t= 2.46; 2.46>2.262;
(house; we reject null hypothesis (tho) -2.262 ll 2.262
, is a first the data moveled sufficient endlince
to support the claim that the ang no of infections per week is not equal to 16.3 at 0.05 sig. hand.
is not equal to 16.3 at 0.05 sign hand.
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1)	a	2	1)	
8	8	LA.	٤	C	1	

08. 1. Ho: 112 60 (ang	. salary it	60 dollars	per day).
H1: 11 160 long	· salary is	les trongs dolla	er perday).
2. K2 0.10		1,20,00	A A A A A A A A A A A A A A A A A A A
2 1- 2 . 725	8.875 ; 85	S = 0.5.	083
k text; 58.8	75 - 60 1		ACRICA.
5.0834	75 - 60 1	1000	13
	27	1.100	0.65.
laudy myra me po			
4/ wified withcal /value	e approachy.	. 48 < 43	0.63
· // Z/2 = 7 7/0.10	-2/3/	to	1
/sigle /-0/63/2-3	/33;//	ejest !	Rejest
S we reject (40) for	u hypotheris	ill	in
JV V		1 4	1.415
4/ wing cifical value 7/ 2/ 2 => 7/0.10 / since -0/63/< 9/ we reject (40) for t=-0.63 >> t	e 0.63.	, नः स्थाऽ	in J
4. Jusing Witical Val	lue approach;	20.0 1	
X = 0.10;	1	110-11-01	h de la companya de
N & R-1 >> 7	. 136.1	(- suley +	
t = 1.41s	or 4-1.415.	3.57 53.6	- 21913
$t=-0.63 \Rightarrow t$ 4. using witical vol $x = 0.10;$ $y = 0.10;$			
	(Ha) will hypo	thesis.	nte d
S. Me do not reject	(Ha) will hypo	thesis.	evidence to
S. Me do not reject	(Ha) will hypo	thesis.	evidence to
S. Me do not reject	(Ha) will hypo	thesis.	evidence to
S. *. We do not reject	(Ha) will hypo	thesis.	evidence to
S. Me do not reject	(Ha) will hypo	thesis.	evidence to
S. Me do not reject	(Ha) will hypo	thesis.	evidence to

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Date_		
1 1/11/2		

Da. 1. Ho: Miz 1/2 (jugger fand aug adult ong gen volume mtake z
Uq. 1. Ho: ll'z ll2 (jugger band aug adult om gen volume make z H, ; ll > ll2. (v v v v v)
$\frac{2}{3}$, $\frac{1}{n_1 = 1}$
n, 2/40.6
8/= 6
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
1. Ho: Un= 36.7 Cjogger have same onggen uptakel
1. Ho: U= 36.7 (jogger have same onggen uptake). H1: U > 36.7. (jogger has more organ uptake).
2. × 2 0.05
3. n=15, x=40.6; 8=6
t test => 40.6-36.7 2.5174 av 2.52.
4. using aithfield value approach; A & = 0.05. Accept leject to dj => 15-1=>14. He XeD.05
& X = 0.05. Dicept Reject to
of => 15-1->14.
t value => 1.761 since. 2.5271.761,
since. 2.5271.761;
5. We reject (Ho) mill hypothests 1.761
6. We conclude that the data post provides sufficient
evidence to conclude that support the physician's
dain that the joffeis maximal volume of one gen uptake
is greater than the average of all adults at
0.05 grig plevel.

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