STAT 515 Homework #3 - Mathew Houser C.F.F. 6.38 (a) Mz = \$3,65 0x = 0.015 (c) _0.0912 mill round 05+(b) Marke in 16 , washed (d) if n= 200) 1 = \$3.65, 6= 70.0106 $(6) \rightarrow 0.4699$ (c) $\rightarrow 0.0301$ 6.58 (a) p = E(p) = 0.33 (2052,0,261+ 10) = ID NUP (a) 6\$=\0.33(1-0.33)/1000 = 0.01487 (1000) (0.33) 215 V + (1000) (1-0/33) 215 V/V (5) (b) P(P<0,40) = P(2<4.7075) 2 00 .9999 7 = 0.40 - 0.33 It is almost Certain that
0.0148.7 in a sample of 1000 people, less than 400 believe that finding and picking up a penny in is egood elucked to sold men (c) P(p>0.30) = P(Z7+2.0175)=0.9783 2= 0.30 - 0.33 In a random sample of 1000 0.01487 People, we would expect more than 300 people to believe that finding and picking up apenny is god luck 97.83%. of the time and some some of 7.36 (a) 80% CI = (93.7004, 102.1796) n=16 df=15 to.10 x=t*; (b) 95% CI = (91.2028, 104.6772) n=16 df=15 to, 025 x tt. \$ (c) We are 80% certain that the true population man falls between 93.7004 and 102.1796. We are 95% confident that the true population mean falls between 91.2028 and 104.6772 The 80% CI is more narrow because we used a smaller portion of the area under the curve (a)

		TATE	
7.38	(a)	99% CI = (49.1365, 57.6635)	83.3
		R = 53,4 S= 8,6 to,005 = Assume Normal	1 1
W 2, 13	(P)	Larger, 31 is significantly lower than the CI.	
19	(c)	Smaller, 58 is to greater than the C.I.	
	(6)	(030.7(-10) 1920A.C.C.()	
7.60	(a)	p=81/170 = 0,4765	
	(6)	90% CI = (0.4135, 0.5395)	87.0
	(0)	\$ = 20,05 00 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	(c)	We are 90% confident that the true proportion	
=		of all meaning ful interactions led by children	
		in the Children's Museum is between 41:35% and	
	, 5140	532951X to shame and Visting	
ζ	(d)	The Claim that The True Proportion is 35%	
	,	is very unlikely because it is quite distant	
		from the values produced in our 90% CI.	
	000	to object on the standard standard of	
7.8	4 (a)	70.005 = 12-576	
	(c)	ing 9501 called of alous of Jos 362 14 4000	
	Λ,	28.50 200 5000 25 6000 - 24x 601457 Aug	
7.88		$n = 1692$ $Z_{0.05}(.5)(.5)$	
		Assume p=0.5 n= (,02)(,02)	
		(2) 50% (II = (99.9004) (E. 1.1796)	WA.T
		neto dest conce satisfi	
		(1) 95817: (41.00 Te 104.0313)	
		A . " 5 = 2 20,00 5 51 = 1 VI FI	
		GLATINGE AND SEE FUND MANERAL LOS ALL DW (L)	
		9611.504 how 100.700 43.700 110. Nom	
	0	We in 15% confident that the true population	1.00
		MRKA FIL METHICA 91.2021 and 109.69.72	
		Dog always work now to st Is Not offer	
	(2)	a supplier to to a signa when wither the carde	