IV. The Easy Loan Company wants to determine whether the average length of car loans has increased from last year's population mean of 50 months. A sample of 49 had a mean of 53 months and a standard deviation of 14 months.

A. Test  $H_0$ :  $\mu \le 50$  and  $H_1$ :  $\mu > 50$  at the .05 level of significance.

For People Using Statistics Software						
Length of Car Loans						
47	58	20	53	52	52	79
72	40	48	55	61	62	68
27	55	49	56	53	78	55
52	44	73	53	57	66	63
33	49	51	75	42	45	71
69	67	52	53	38	36	43
38	46	32	73	60	23	53

B. Calculate the critical value of  $\bar{x}$ .

C. Calculate type II error for  $\mu$  = 55 months.

D. What is the type II error for these population means?

54 months 53.31 months

50.01 months