STAT 400 SUMMER II 2001 (PROFESSOR GREEN)
SOLUTIONS TO PROBLEMS DUE AUGUST 16

16.

(a) .001
(b) .01
(c) .1

18.

(a) 1.5
(b) Retain the null hypothesis.
(c) .002
(d) .8560
(e) 88
(f) .0003.

20. The test statistic takes the value -2.139, giving a P-value between .025 and .01 whether interpreted as T with 49 degrees of freedom (most accurate) or as standard normal. Since this is less than .05 but more than .01, the null-hypothesis is rejected at the .05 significance level but retained at the more restrictive .01 level. It would seem reasonable to make the purchase.

26. The test statistic takes the value 3.77336, which gives a P-value below .0005, if interpreted as T with 44 degrees of freedom. This is conclusive evidence that the standards have not been met.

30. The test statistic takes the value -6.17077, which is far into the rejection region at any reasonable significance level. It is conclusive evidence that average intake is below the recommended allowance.