

STAT 2507 – Final Exam – Summer 2008 – Solutions

MULTIPLE CHOICE: ADDEDABDCCEC

WRITTEN:

1. (A) 237.195 (B) $\bar{X} \sim N(252, 81/4)$ (C) 0.4186
2. (A) $X \sim B(1500, 0.10)$ (B) $\bar{X} \overset{approx}{\sim} N(150, 135)$ (C) 0.2061
3. (A) $Q_1 = 1.955$, median = 2.01, $Q_3 = 2.045$ (B) No outliers.
4. (A) 0.1088 (B) 0.8088
5. (A) (139.7, 160.3) (B) 107
6. (A) $3.92 \frac{\sigma}{\sqrt{n}}$ (B) The second interval would be 55.36% the length of the first interval.
7. (A) Ignore this part. (B) $H_a : \mu_1 < \mu_2$, $t_0 = -0.79$, fail to reject H_0 .
8. (A) (-0.43, -0.05) (B) $H_a : p_1 < p_2$, $z_0 = -2.40$, reject H_0 and accept H_a .
9. $H_a : \mu_d < 0$, $t_0 = -2.83$, reject H_0 and accept H_a .
10. (A) 0.10 (B) 0.25
11. Refer to solutions for Assignment #4, Question #5.