

Statistics 31, Section 3, Homework # 13

Due: Thursday, November 28, 2000

B13: For $T \sim t$, with degrees of freedom:

(a) 3 (b) 12 (c) 150 (d) $N(0,1)$

Find:

- (i) $P\{T > 1.7\}$ (0.094, 0.057, 0.046, 0.045)
- (ii) $P\{T < 2.14\}$ (0.939, 0.973, 0.983, 0.984)
- (iii) $P\{T < -0.074\}$ (0.4728, 0.4711, 0.4706, 0.4705)
- (iv) $P\{T > -1.83\}$ (0.918, 0.954, 0.965, 0.966)
- (v) $P\{|T| > 1.18\}$ (0.323, 0.261, 0.240, 0.238)
- (vi) $P\{|T| < 2.39\}$ (0.903, 0.966, 0.982, 0.983)
- (vii) $P\{|T| < -2.74\}$ (0, 0, 0, 0)
- (viii) c so that $0.05 = P\{|T| > c\}$ (3.18, 2.17, 1.98, 1.96)
- (ix) c so that $0.99 = P\{|T| < c\}$ (5.84, 3.05, 2.61, 2.58)