

Statistics – OR 155, Section 1, Homework # 12

Due: Thursday, April 16, 2009

6.20 (\$1260, \$1540)

6.21

6.28 (but use Excel & make histogram)

C23: 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. $P\{T < -0.74\}$ (0.256, 0.237, 0.230, 0.230)
- 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)

C23 (cont.)

- 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)