

Quiz 3 for Statistics 301
Elementary Statistical Methods - Fall 2000
Material Covered: Chapter 7 of Workbook and text
Friday, 6th October

This is a 15 minute quiz, worth 5% and marked out of 5 points. The total possible points awarded for each question is given in square brackets at the beginning of each question.

Name (please print): _____ . ID Number: _____
last first

The distribution of the number of minutes napping while listening to your spouse tell you about their day, X , is given below.

x	1	2	3
$P(X = x)$	0.2	0.6	0.2

(a) [1] Complete the following table of joint distribution probabilities *as well as* the average times spent napping over two days.

$P(x_1, x_2)$		x_1		
	\bar{x}	1	2	3
	1	1	$\frac{3}{2}$	2
x_2		0.04	0.12	0.04
	2	_____	2	$\frac{5}{2}$
		0.12	0.36	0.12
	3	_____	$\frac{5}{2}$	3
		0.04	0.12	0.04

(b) [2] Complete the sampling distribution of the average waiting time, statistic \bar{X} ,

\bar{x}	1	$\frac{3}{2}$	2	$\frac{5}{2}$	3
$P(\bar{X} = \bar{x})$	_____	_____	_____	_____	_____

(c) [1] $\mu_{\bar{X}} =$ (circle one) **1.75** / **2.00** / **2.25** / **2.50** / **2.75**.

(d) [1] The sample size for \bar{X} is (circle one) **1** / **2** / **3** / **4** / **5**.

(a) [1] $\frac{3}{2}$, 2

(b) [2] 0.04, 0.24, 0.44, 0.24, 0.04

(c) [1] **2.00**

(d) [1] **2**