Quiz 1 for Statistics 301
Elementary Statistical Methods - Spring 2000
Material Covered: Chapter 2 of Workbook and text
For: Friday, 28th January

This is a 15 minute quiz, worth 6% and marked out of 6 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 Department of Transport (DOT) takes a sample of five cars from a parking lot which is filled with 950 cars. The DOT is interested in the average weight of the cars in the parking lot.

(a) [1] Use the random numbers table below to choose the five cars. Sample with replacement, start at row 1, column 1, and move left to right.

rows									
1	14458	66140	47281	36282	61973	36103	53684	15740	26906	77123
2	51186	01079	67704	81649	59776	70077	16643	36900	27752	16201
3	81854	65045	13387	91959	42079	31960	11452	96812	79233	51239

The five cars chosen are: _____ .

(b) [1] The sampling procedure used in part (a) gives a (circle one) **simple random sample / stratified sample / systematic sample / cluster sample / convenience sample**.

(c) [2] Match the given statistical terms with this car example.

terms	car example
(a) population	(a) weights of five cars
(b) sample	(b) average weight of five cars
(c) statistic	(c) weights of 950 cars
(d) parameter	(d) average weight of 950 cars

terms	(a)	(b)	(c)	(d)
example				

(d) [2] Consider the following incomplete distribution table of the weights of the 950 cars in the parking lot. For example, 300 cars weigh somewhere between 3000 and up to but not including 3500 pounds.

class interval	number	relative number	proportion per 1 car	% per 1 car
3000 to 3500	300	$\frac{300}{950} \approx 0.32$	·	·
3500 to 4200	425	$\frac{425}{950} \approx 0.45$	·	·
4200 to 4500	200	(b)	·	(d)
4500 to 5000	20	$\frac{20}{950} \approx 0.02$	(c)	·
5000 to 5500	(a)	·	·	·
total	950	1.0		

Partially complete the distribution table above by filling in the following table below.

(a)	(b)	(c)	(d)

(a) [1] 144, 586, 614, 047, 281

(b) [1] **simple random sample**

(c) [2] Match

terms	(a)	(b)	(c)	(d)
example	(c)	(a)	(b)	(d)

(d) [2] Partially complete

(a)	(b)	(c)	(d)
5	0.21	0.0000421	0.07