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Govt 3990

Application exercise:

Distributions of numerical variables

Write your responses on a piece of paper. WRITE LEGIBLY! Only one submission per team is required. One team will be randomly selected and their responses will be discussed and graded.

Shapes of distributions

1. Below are two histograms. One corresponds to the age at which a sample of people applied for marriage licenses; the other corresponds to the last digit of a sample of social security numbers. Which graph is which, and why?

   2

   (a)
   [height=1in]figures/last$_d igit_S SN$

   (b)
   [height=1in]figures/age$_m ar_l ic$

2. Match the following variables with the histograms and bar graphs given below. These data represent Sta 101 students at Duke. [*Hint: Think about how each variable should behave.*]

   2

   (a) the height of students
   (b) gender breakdown of students
   (c) the time it took students to get to their first class of the day
   (d) the number of hours of sleep students received last night

(e) whether or not students live off campus

(f) the number of piercings students have

3

(1)
[height=1.2in]figures/gender

(2)
[height=1.2in]figures/height

(3)
[height=1.2in]figures/sleep

(4)
[height=1.2in]figures/off$_c ampus$

(5)
[height=1.2in]figures/piercings

(6)
[height=1.2in]figures/time$_t o_c lass$