Question   1   2   3   4   5   6   7   8   9   10   11

Description

Section 4.2 - Measures of Central Tendency

Instructions

Please work all homework questions and clearly label / place your answers in the
boxes (or parenthesis) provided. If you have questions, please feel free to email me at
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1.   Question Details   JModd7 4.2.002. [1639475]

Find the mean, median, and mode of the given set of raw data. (If more than one mode exists, separate your answers with commas. If an answer does not exist, enter DNE.)

20   24   18   30   21   24   32   27

32   35   19   26   38   31   20   23

mean   [   ]

median   [   ]

mode   [   ]

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2.   Question Details   JModd7 4.2.005. [1639452]

Find the mean, median, and mode of each set of data. (If more than one mode exists, separate your answers with commas. If an answer does not exist, enter DNE.)

(a)   7   7   8   9   10   13

mean   [   ]

median   [   ]

mode   [   ]

(b)   7   7   8   9   10   109

mean   [   ]

median   [   ]

mode   [   ]

(c) How do your answers for parts (a) and (b) differ (or agree)? Why?

○   The mode is affected by the change. The mean and median stay the same.

○   The mean and median are affected by the change. The mode stays the same.

○   The mean, median and mode all stay the same.

○   The mean is affected by the change. The median and mode stay the same.

○   The median is affected by the change. The mean and mode stay the same.

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3.   Question Details   JModd7 4.2.006. [1639323]

Find the mean, median, and mode of each set of data. (If more than one mode exists, separate your answers with commas. If an answer does not exist, enter DNE.)

(a)   60   90   100   110   110   160

mean   [   ]

median   [   ]

mode [   ]

(b)   20 90 100 110 110 200

mean   [   ]
median [   ]
mode   [   ]

(c) How do your answers for parts (a) and (b) differ (or agree)? Why?

○ The mean and median are affected by the change. The mode stays the same.

○ The mean is affected by the change. The median and mode stay the same.

○ The mean, median and mode all stay the same.

○ The mode is affected by the change. The mean and median stay the same.

○ The median is affected by the change. The mean and mode stay the same.

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4.   Question Details   JModd7 4.2.008. [1639477]

Find the mean, median, and mode of each set of data. (If more than one mode exists, separate your answers with commas. If an answer does not exist, enter DNE.)

(a)   16 20 24 28 32 36

mean   [   ]
median [   ]
mode   [   ]

(b)   800 1,000 1,200 1,400 1,600 1,800

mean   [   ]
median [   ]
mode   [   ]

(c) How are the data in part (b) related to the data in part (a)?

○ The data in part (b) are 25 times the data in part (a).

○ The data in part (b) are 50 times the data in part (a).

○ The data in part (b) are 100 times the data in part (a).

○ The data in part (b) are the same as the data in part (a).

○ The data in part (b) are 60 times the data in part (a).

(d) How do your answers for parts (a) and (b) compare?

○ The mean and median in part (b) are 40 times the mean and median in part (a). Neither data set had a mode.

○ The mean and mode in part (b) are 60 times the mean and mode in part (a). Neither data set had a median.

○ The mean in part (b) is 50 times the mean in part (a). Neither data set had a mode.

○ The mean, median and mode in part (b) are 50 times the mean, median and mode in part (a).

○ The mean and median in part (b) are 50 times the mean and median in part (a). Neither data set had a mode.

5.

Que A cyclist won a bicycle race every year for 7 years. His margins of victory (time difference of the second place finisher) are given in the following figure. Find the mean, median, and mode of the cyclist's victory margins. (Round your answers to the nearest second. If an answer does not exist, enter DNE.)

mean [   ] : [   ] m:s
median [   ] : [   ] m:s
mode [   ] : [   ] m:s

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Margin (m:s)	7:35	6:05	6:49	7:17	1:07	6:18	4:30

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6.   Question Details   JModd7 4.2.014. [1639202]

A basketball player's average number of points per game (PPG) for each of his seasons is given in the figure below. Find the mean, median, and mode of the average points per game per season by the basketball player. (Round the mean to three decimal places. If more than one mode exists, separate your answers with commas. If an answer does not exist, enter DNE.)

mean [   ]
median [   ]
mode [   ]

Season	PPG
1984-85	29.4
1985-86	28.9
1986-87	28.7
1987-88	33.9
1988-89	22.1
1989-90	26.9
1990-91	21.7
1991-92	20.2

Season	PPG
1992-93	31.3
1994-95	30.3
1995-96	25.1
1996-97	28.8
1997-98	21.4
2001-02	34.9
2002-03	20.7

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7.   Question Details   JModd7 4.2.015. [1639262]

The frequency distribution in the following table lists the results of a quiz given in Professor Gilbert's statistics class. Find the mean, median, and mode of the scores. (Round the mean to one decimal place. If more than one mode exists, separate your answers with commas. If an answer does not exist, enter DNE.)

mean [   ]
median [   ]
mode [   ]

Score	Number of Students
10	6
9	13
8	12
7	11
6	13
5	5

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8.   Question Details   JModd7 4.2.019.CMI. [1639502]

Katrina must take five exams in a math class. If her scores on the first four exams are 72, 69, 86, and 83, what score does she need on the fifth exam for her overall mean to be the following?

(a) at least 70

[ ]

(b) at least 80

[ ]

(c) at least 90

[ ]

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9. Question Details   JModd7 4.2.024. [1639355]

Sully drove from Atlanta, Georgia, to Birmingham, Alabama, a distance of 150 miles, at a mean speed of 58 miles per hour. On his return trip, the traffic was much lighter, and his mean speed was 64 miles per hour. Find Sully's mean speed for the round trip. (*HINT:* Divide the total distance by the total time. Round your answer to one decimal place.)

[   ] mph

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10. Question Details   JModd7 4.2.028. [1639328]

The mean salary of ten employees is $32,000, and the median is $30,000. The highest-paid employee gets a $4,000 raise.

(a) What is the new mean salary of the ten employees?

$ [   ]

(b) What is the new median salary of the ten employees?

$ [   ]

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11. Question Details   JModd7 4.2.031. [1639342]

The age composition of a country in a certain year is given in the following table.

Age (years)	Number of People (thousands)
$0 < x < 5$	19,177
$5 \le x < 10$	20,551
$10 \le x < 15$	20,528
$15 \le x < 25$	39,185
$25 \le x < 35$	39,895
$35 \le x < 45$	44,145
$45 \le x < 55$	37,660
$55 \le x < 65$	24,276
$65 \le x < 85$	30,752
85 and over	4,243

(a) Find the mean age of all people under the age of 85. (Round your answer to one decimal place.)

[   ] yr

(b) Replace the interval "85 and over" with the interval $85 \le x \le 100$ and find the mean age of all people. (Round your answer to one decimal place.)

[   ] yr

Assignment Details