1

If ten executives have salaries of $80,000, six have salaries of $75,000, and three have salaries of $70,000, what is the median salary?

A. $75,000 **Go to** 7

B. $76,842 **Go to** 10

C. $77,500 **Go to** 2

D. $80,000 **Go to** 5

E. None of the above **Go to** 6

2

The mean score on a national exam is 500 with a SD of 100. If each score is increased by 20 and then increased by 10%, what are the new mean and SD?

A. 570, 100 **Go to** 9

B. 570, 110 **Go to** 4

C. 572, 100 **Go to** 11

D. 572, 110 **Go to** 6

E. 572, 132 **Go to** 8

3

If every man married a woman who was exactly 3 years younger than he, what would be the correlation between the ages of married men & women?

A. somewhat negtive. **Go to** 1

B. 0 **Go to** 10

C. somewhat positive **Go to** 7

D. nearly 1 **Go to** 5

E. 1 **Go to** 13

4

In two AP classes' final exam, 25 students averaged 87 while 30 students averaged 98. If the two groups are combined, what will the final average be?

A. 92 **Go to** 12

B. 92.5 **Go to** 1

C. 93 **Go to** 8

D. 94.5 **Go to** 3

E. 95 **Go to** 13

5

Suppose the regression line, $y=a+4x$, passes through $(1,3)$. If x-bar and y-bar are the sample means of x and y, then y-bar =

A. x-bar **Go to** 9

B. 4(x-bar) **Go to** 10

C. 3 + 4(x-bar) **Go to** 6

D. 2 + x-bar **Go to** 2

E. -1 + 4(x-bar) **Go to** 7

6

If the standard deviation of a set of observations is 0, you can conclude

A. there is no rel'p between observ'ns **Go to** 12

B. the mean is 0 **Go to** 8

C. all observations are the same value **Go to** 9

D. there was a mistake in calc'ns **Go to** 11

E. none of the above **Go to** 4

7

Suppose the correlation betw. two variables is r = .28. What will the new r be if .17 is added to all x's and every y is doubled and they are interchanged?

A. .28 **Go to** 10

B. .45 **Go to** 6

C. .56 **Go to** 9

D. .90 **Go to** 2

E. -.28 **Go to** 11

8

A sample of golf scores: n=20, mean = 84.5, SD=11.5, Min.=68, Q1=78, Med=86, Q3=91, and Max. = 112. What can be said about the number of outliers?

A. none **Go to** 3

B. one **Go to** 13

C. two **Go to** 5

D. at least 1 **Go to** 12

E. at least 2 **Go to** 1

9

Using the most commonly accepted definition of outliers, a set has five outliers. If every value is increased by 20%, how many outliers are there now?

A. < 5 **Go to** 3

B. 5 **Go to** 11

C. 6 **Go to** 12

D. > 6 **Go to** 8

E. Impossible to tell **Go to** 4

10

When a dataset has suspect outliers, which of the following are preferred measures of central tendency and of variability?

A. mean and SD **Go to** 9

B. mean and variance **Go to** 11

C. mean and range **Go to** 4

D. median and range **Go to** 6

E. median and IQR **Go to** 2

11

A data set includes two outliers, one at each end. If both of these outliers are removed, which of the following is a possible result?

A. mean and SD stay the same **Go to** 12

B. median and SD stay the same **Go to** 8

C. SD and variance stay the same **Go to** 3

D. mean and median stay the same **Go to** 4

E. mean and SD go up **Go to** 13

12

Consider n pairs of numbers. Suppose x-bar=4, s_x=3, y-bar=2, and s_y=5. Of the following, which could be the least squares line?

A. $y = 2 + x$ **Go to** 1

B. $y = -6 + 2x$ **Go to** 7

C. $y = -10 + 3x$ **Go to** 5

D. $y = 5/3 - x$ **Go to** 13

E. $y = 6 - x$ **Go to** 3

13

If Q1 = 50 and Q3 = 70, which of the following must be true?

I. The median = 60

II. The mean is betw. 50 & 70

III. The std. deviation is ≤ 20

A. I only **Go to** 5

B. II only **Go to** 7

C. III only **Go to** 2

D. All are true. **Go to** 10

E. None must be true **Go to** 1

14

Trail Path: 1, 5, 7, 10, 2, 6, 9, 11, 4, 8, 12, 3, 13, (1)

Problems taken from Barron's Flash Cards, Data Analysis deck

A. **Go to**

B. **Go to**

C. **Go to**

D. **Go to**

E. **Go to**