Name _____ Score _____ Blocks Mastered _____

AP Statistics – Proficiency Exam Part 1

BLOCK #1: (EDA) Exploratory Data Analysis

#1. (EDA): I can look at a pie chart and analyze what about it might be misleading.
#2. (EDA): I can consider a distribution that is skewed and determine the relative positions of the mean and median.
#3. (EDA): I can analyze a boxplot and determine what (if anything) might be incorrect about how it was constructed.
#4. (EDA): I can consider how manipulating the values of a data set (adding/multiplying/rounding) can affect some of the summary statistics from data graphed via a dotplot.
#5. (EDA): I can look at two boxplots and analyze the values of their medians and compare and contrast those values.
#6. (EDA): I can compare the values for center (median) and spread (IQR) of two boxplots.
#7. (EDA): I can compare the differences in the values of the interquartile ranges for two boxplots.
#8. (EDA): I can use a dotplot to determine the value of the median of a distribution of values.
#9. (EDA): I can consider a histogram and determine the relative positions of the mean, median and mode based on its shape.
#10. (EDA): I can transform a data set by multiplying each observation by a certain number and determine which summary statistics are and are not affected by that transformation.

BLOCK #2: (ND) Normal Distributions

#11. (ND): I can use the 68-95-99.7% to approximate a percent of observations falling within certain values in a normal distribution.
#12. (ND): I can consider percentile ranks, quartiles, and values of z-scores and order those values in either an ascending or descending order.
#13. (ND): I can calculate z-scores in order to determine an approximate probability within the context of a normal distribution.
#14. (ND): I can correctly calculate a z-score for a given observation.
#15. (ND): I can use the complement rule of probability to calculate a probability using the 69-95.99.7% rule.
#16. (ND): I can use the 68-95-99.7% to approximate a percent of observations falling within certain values in a normal distribution.
#17. (ND): I can use a normal curve and z-scores to determine an approximate probability within a normal distribution.

BLOCK #3: (TWT) Two Way Tables

#18. (TWT): I can use a two way table to calculate a conditional probability.
#19. (TWT): I can use a two way table to calculate a conditional probability.
#20. (TWT): I can use a two way table and the test for independence to determine if two events are independent or not.
#21. (TWT): I can use a two way table and joint and marginal frequencies to determine missing values within considerations to the sample space.
#22. (TWT): I can use a two way table to analyze data and draw certain conclusions.

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AP Statistics – Proficiency Exam Part 1

BLOCK #4: (LR): Linear Regression

#23. (LR): I can interpret the y-intercept from a linear regression equation in the context of the problem.

#24. (LR): I can use a scatterplot to make an approximate prediction.

#25. (LR): I can interpret the slope from a linear regression equation in the context of the problem.

#26. (LR): I can guess an approximate value for a correlation coefficient based on the appearance of a scatterplot.

#27. (LR): I can calculate a residual using the residual formula.

#28. (LR): I can match a linear equation written in slope intercept form to a scatterplot by judging where its y-intercept might be located at.

#29. (LR): I can look at an LSRL graphed on a scatterplot and make judgments about the residual values for specific data points on the graph.

#30. (LR): I can use a LSRL equation to make a prediction.