Name _____   Date _____

Validating Data Generating Processes - Independent Practice Worksheet

Complete all the problems.

1. In a coin flip, the coin lands on tails both times over 2 tosses. Would the probability of seeing the double tails cause you to question the model of a 0.5 probability for tails?

2. A political candidate for local office is considering the votes for an upcoming election. The votes can only be one of four possible values. Can this probability be used to derive a probability for every election?

3. Historical information over 10 years regarding turnover rates resulted in concerning probabilities of hiring employees. Can this data be used to design a model?

4. Bob invested in stock market after studying the potential market. Studying the past performance, Bob has broken the investment results into 5 outcomes. Can his study be used to derive an investment model?

5. Betty bakes cakes every day and does not sell any cake that is stale. Each morning Betty bakes 5 cakes. Can the data of one year be used to calculate the cakes thrown out on average?

6. Southport Autos offers a variety of luxury options for cars. The probability of any one customer ordering a luxury car with a sun roof option is .16. Can this probability be used to estimate the number of sun roofs sold in entire luxury car market?

7. A model of spinning coin with heads up has the probability of 0.5. Would this result of 10 tails in row be used to derive a model?

8. Suppose a six sided die is rolled 5 times and you land on the number 4 three times in a row. Would that make you question the model of probability of this die?

9. A coin is tossed and dice is rolled. Can the probability of getting a head and chance of getting number 1 be used as model when dice and coin is tossed?

10. The probability of getting number 10 in a casino game is 0.10. Can this probability be used to model the outcome when the game is played 2000 times?