

Statistics/ Probability Test

1. Taylor was playing Phase 10, a card game, and had the following numbered cards in her hand:
7, 2, 1, 10, 9, 2, 4, 5

Determine the measure of variability for the cards that Taylor currently has in her hand.

- A. 2 B. 8 C. 9 D. 10

2. The number of wins that a college basketball team had from the last five seasons is shown below.

Season	1	2	3	4	5
Number of Wins	27	18	24	25	12

Evaluate the mean of the number of wins.

- A. 18 B. 20 C. 22 D. 24

3. The number of pages that Carol wrote in her journal each day from Monday to Friday are:
4, 9, 7, 6, 8

Determine the probability of Carol writing an even number of pages in her journal.

- A. $\frac{1}{5}$ B. $\frac{2}{5}$ C. $\frac{3}{5}$ D. $\frac{4}{5}$

- Use the following data for questions 4 – 5.** The ages of the children at a birthday party are shown below.
3, 7, 5, 10, 9, 15, 12, 6, 9, 7, 10

4. **Determine the probability** of a kid that has an **odd age** to get into trouble at the party.

- A. $\frac{4}{11}$ B. $\frac{7}{11}$ C. 1 D. 0

5. **Analyze the data and determine the mode/modes** from the data above.

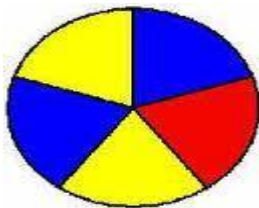
- A. 3, 5, 7 B. 5, 7, 9 C. 4, 5, 7 D. 7, 9, 10

6. Austin called his mom from college about every day. Austin's phone calls lasted: 20 minutes, 7 minutes, 7 minutes, 12 minutes, and 9 minutes. **Evaluate the measure of center** for the phone calls.

- A. mean – 11 minutes, mode – 13 minutes median - 7
B. mean – 13 minutes, mode – 11 minutes median - 12
C. mean – 12 minutes, mode – 7 minutes median - 9
D. mean – 11 minutes, mode- 7 minutes median - 9

7. According to question 6 above, **determine the probability** of his phone calls lasting **less than 10 minutes**.

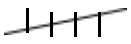
- A. $\frac{2}{5}$ B. $\frac{3}{5}$ C. $\frac{2}{10}$ D. $\frac{3}{10}$



8. **Evaluate the compound probability** of getting a yellow and a heads on a quarter in simplest form.

- A. $\frac{1}{5}$ B. $\frac{1}{10}$ C. $\frac{2}{10}$ D. $\frac{2}{5}$

13. MCMS 8th graders did a survey of how many hamburgers you eat. According to the frequency table, **determine** the **mode** number of hamburgers eaten.

Number of Hamburgers	Frequency
2	
4	
6	
8	
10	
12	

- A. 2 B. 6 C. 8 D. 10

14. A store has green, blue, yellow, and orange socks that can go with either black, blue, white, gray pants. **Evaluate** the total amount of combinations possible using a tree diagram?

- A. 8 B. 24 C. 12 D. 36

15. Jason has taken 11 math quizzes this year. Her quiz scores are shown: 9, 9, 8, 8, 8, 10, 8, 4, 6, 7, 0 **Evaluate** Jason's **mean**.

- A. 7 B. 8 C. 9 D. 10

EXTENDED RESPONSE QUESTION

A. **Analyze** the spinner above and using your knowledge of fair/unfair determine if this spinner is fair or unfair? **Justify** your answer with an **explanation**. **5 POINTS**

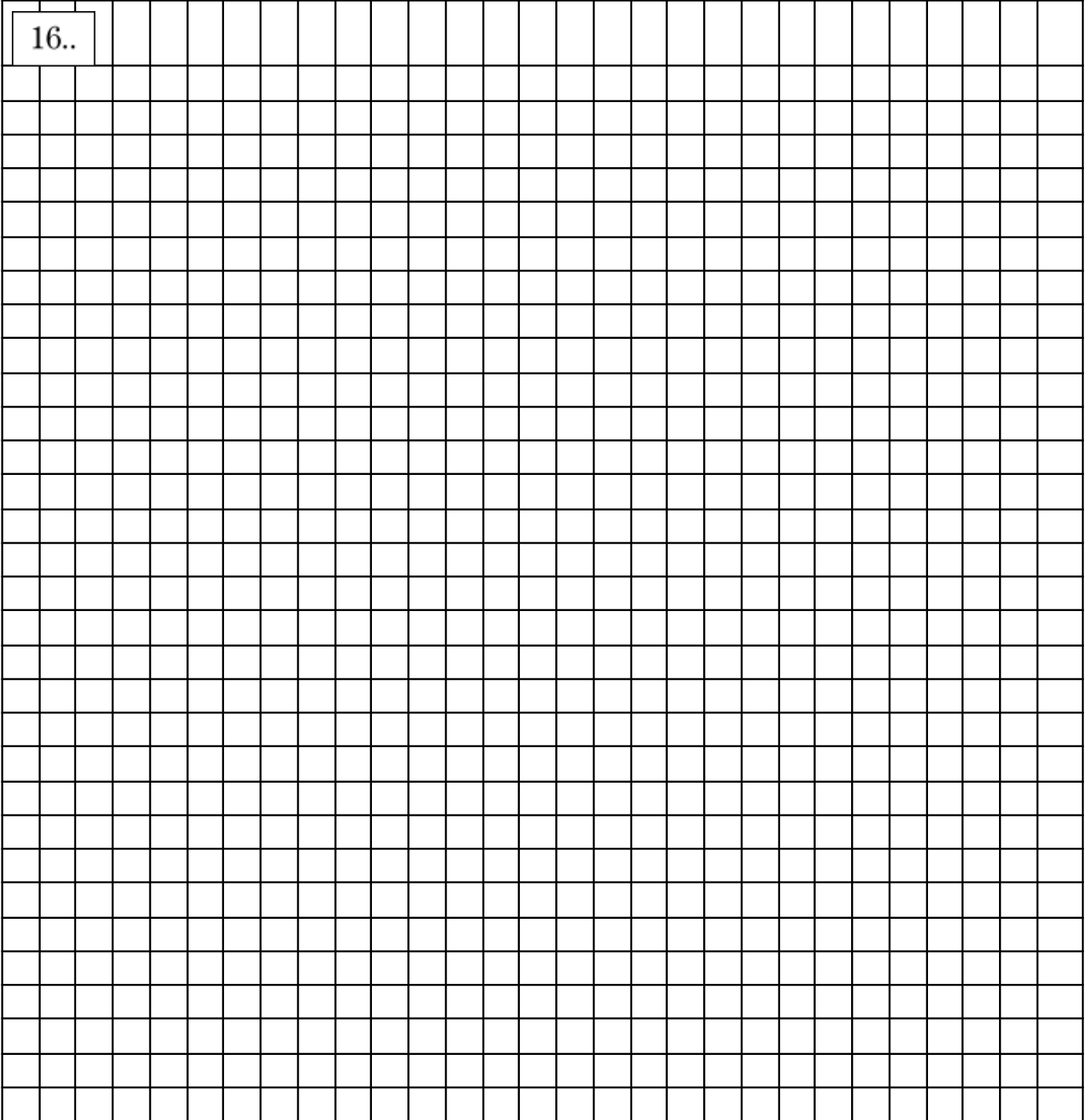
B. At the end of the fifth game Mark started to accuse Susan of cheating. She had won **four out of five** games. **Determine** if Susan cheated during the games they played. **Defend** your answer with mathematical reasoning? **5 POINTS**

C. According to the spinner, **conclude** what the **theoretical probability** of spinning a **1** would be? **5 POINTS**

EXTENDED RESPONSE _____/15 POINTS

MATHEMATICS

16..

A large grid of graph paper for writing an extended response. The grid is 25 columns wide and 30 rows high. The first row is partially filled with the text '16..' in the first column. The rest of the grid is empty.

