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## SAGE/Term 4 REVIEW - Statistics and Probability

1. List all of the outcomes for flipping a coin 3 times.
a. What is P (at least one heads)? $\qquad$
b. What is P (at least two tails)? $\qquad$
c. What is $\mathrm{P}($ Tail, Tail, Head)? $\qquad$
d. What is P (Tails, Tails, Tails)? $\qquad$
2. You are spinning the spinner below once and then rolling a die. List all possible outcomes (the Sample Space).

a. What is the $\mathrm{P}($ yellow, 6)? $\qquad$
b. What is the probability of a red and an odd? $\qquad$
c. What is the $\mathrm{P}($ green or 1$)$ ? $\qquad$
d. What is $\mathrm{P}($ blue, multiple of 3$)$ ? $\qquad$
3. You spin the spinner below once and then flip a coin. List all possible outcomes (the Sample Space).

a. What is the probability that you will spin a blue and then get a Tail? $\qquad$
b. What is the probability of green or heads? $\qquad$
c. What is $\mathrm{P}($ blue or red $)$ ? $\qquad$
4. You spin a 3-sided spinner 100 times with the following results: 80 yellow, 15 pink, 5 purple. Draw what you believe the spinner would look like and list the experimental probabilities for each color on the spinner. (4 points)

## Answer the following questions using the data given.

Mr. Sackett's EMT Scores - 40, 95, 65, 90, 90, 100, 0, 90, 80, 50, 90, 50, 80, 80, 80, 90, 10, 100, 60, 90
Mrs. McBride's EMT Scores - 50, 40, 95, 85, 80, 100, 100, 90, 70, 70, 90, 90, 80, 80, 70, 100, 90, 90, 30, 20

1. For both sets of data, find the following:
a. Mr. Sackett's mean, median, mode, range, min, max, quartile 1 and quartile 3. (8 points)
b. Mrs. McBride's mean, median, mode, range, min, max, quartile 1 and quartile 3. (8 points)
2. Create a dot plot and box-and-whisker plot for both sets of data.
a. Dot plot and a box-and-whisker plot for Mr. Sackett's data.
b. Dot plot and a box-and-whisker plot Mrs. McBride's data.
3. Which measure of center is best for:
a. Mr. Sackett's data? Explain your reasoning.
b. Mrs. McBride's data? Explain your reasoning.
4. Based on your observations, which teacher's students did better on the EMT? Explain your reasoning.
5. If your average score on the 5 assignments in unit 12 was a $70 \%$, what would you predict your score on the EMT would be? Explain your reasoning.
6. If $20 \%$ of the Skittles in a fun size bag are yellow, how many Skittles out of 200 would you expect to be yellow?
7. If 1 out of every 6 students did not do their assignment, then how many out of the 420 students in $7^{\text {th }}$ grade didn't do their homework?
