1. Caroline, Alyssa, and Jazlynn went to McDonald’s for breakfast. McDonald’s had a breakfast special deal which included one main entrée, one side item, and one drink for $1.99. The choices for each item are below.

Main entrée: pancakes (P) or eggs (E)

 Side dish: bacon (B) or sausage (S) or

 hashbrowns (H)

 Drink: orange juice (O) or milk (M)

Part I: DRAW A TREE DIAGRAM FOR THIS BREAKFAST SPECIAL.

Part II: COMPLETE THE LIST TO SHOW ALL POSSIBLE COMBINATIONS FOR THIS BREAKFAST SPECIAL.

PBO PBM PSO PSM

Part III: How many different possible combinations are there for this breakfast special? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Refer to #1. What is the probability that the next breakfast special ordered will include pancakes?
2. Refer to #1. What is the probability that the next breakfast special ordered will include bacon?
3. Refer to #1. What is the probability that the next breakfast special ordered will include pancakes and bacon?
4. What is the probability of Jared rolling a fair number cube once and getting a “2” and spinning the spinner shown below once and landing on “G” (for green)?

![MCj03235780000[1]]()

Bed d

Oed d

Yed d

G d

Red d

1. What is the probability of Cameron flipping a fair coin 3 times and getting

HEADS-HEADS-HEADS?

7. What is the probability of Makayla drawing 1 card from a standard deck and drawing a queen?

8. What is the probability of Dillon rolling a pair of dice and getting a double five?

9. What is the probability of Mando drawing 1 card from a standard deck and drawing an ace or a king?

10. Mrs. Johnson has a bag of Hershey miniatures that contains 3 Hershey bars, 2 Mr. Goodbars, 2 Krackle, and 1 Special Dark.

What is the probability that Ashlynn will draw 1 candy bar (without looking), NOT replace it, draw a second candy bar (without looking) and get 2 Hershey bars?

11. Coach Gammel went out of town last weekend. He packed a pair of jean shorts (J) and khaki shorts (K) and 3 t-shirts – 1 red (R), 1 green (G), and 1 blue (B). Write a list that shows all combinations of shorts and shirts that Coach Gammel could wear.

12. Devine has 4 stretchy book covers: one dotted (D), one striped (S), one tye-died (T), and one camouflage (C). Devine needs to cover her History book and Science book. Complete the tree diagram to show all possible outcomes. How many possible outcomes are there? \_\_\_\_\_\_\_\_\_

D

S

T

C

S

D

T

C

T

History

Science

History

Science

History

Science

History

Science

13. What is the probability of Nick flipping a coin and getting TAILS and rolling a number cube and getting a numbers less than 3?

Use this information for #14-18:

Craig had the following number of fouls in the last 6 basketball games:

 5, 4, 5, 2, 3, 2

CD Glider Distance

14. What is Craig’s MODE number of fouls?

15. What is Craig’s MEDIAN number of fouls?

16. What is the RANGE in the number of Craig’s fouls?

17. What is Craig’s MEAN number of fouls?

18. Which statement is TRUE?

 A There is no mode.

 B The mean and the range are equal.

 C The range is the greatest value.

 D The mean and the median are equal.

Use this information for #19-24:

Jeff and Joseph collected the following data during a science experiment.

|  |  |
| --- | --- |
| Trial | Distance (in.) |
| 1 | 12 |
| 2 | 10 |
| 3 | 9 |
| 4 | 15 |
| 5 | 22 |
| 6 | 19 |

1. What is the MODE distance?
2. What is the MEDIAN distance?
3. What is the RANGE in distance?
4. What is the MEAN distance?
5. Which measure is the greatest?

A mean C mode

 B median D range

1. Based on this data, what is the probability that in the next trial the glider will travel at least 1 ½ feet?

HINT: 1 ½ feet = \_\_\_\_\_\_\_\_ inches

Use this information for #25-30:

Weston made the following grades on his first four math quizzes: 81, 73, 78, 81

1. What is Weston’s MODE quiz grade?
2. What Weston’s MEDIAN quiz grade?
3. What is the RANGE in Weston’s quiz grades?
4. What is Weston’s MEAN quiz grade?
5. Which measure of data would NOT reasonably reflect Weston’s quiz grades?

A Mean C Mode

B Median D Range

1. What would Weston need to make on his next test to have a MEAN of 80 for the five tests?

A 80

B 84

C 82

D 81

Use this information for #31-35:

The table below shows the number of books that Rita read during each month of the school year.

|  |  |
| --- | --- |
| Month | # of Books |
| Aug | 1 |
| Sept | 2 |
| Oct | 2 |
| Nov | 1 |
| Dec | 4 |
| Jan | 0 |
| Feb | 2 |
| March | 4 |
| April | 2 |
| May | 1 |

1. What is the MODE of this data?
2. What is the MEDIAN?
3. What is the RANGE?
4. What is the MEAN ?

35. Determine if EACH statement is TRUE(T) or FALSE (F).

\_\_\_\_\_The mean is less than the median.

\_\_\_\_\_The mode is equal to the mean.

\_\_\_\_\_The range is the greatest value.

\_\_\_\_\_The median is less than the mode.

\_\_\_\_\_The mean, median, and mode are equal.

\_\_\_\_\_The median and the mode are equal.

1. The oldest member on Jack’s intramural basketball team is 28 years old. The range is 13 years. How old is the youngest member on the team?

A 14

B 21

C 15

D 41

1. The youngest member on Joe’s intramural basketball team is 16 years old. The range is 9 years. How old is the oldest member on the team?

A 7

B 25

C 13

D 23

1. The PTO bought 4 MP3 players to give away in a drawing; they spent $206. The PTO later bought another MP3 player for the drawing; it cost $39. What was the mean cost of the MP3 players?

A $81.67

B $63.50

C $122.50

D $49.00

1. Match each measure of the data which its basic description.

A Mean B Mode C Median D Range

 \_\_\_\_\_ high – low

 \_\_\_\_\_ average

 \_\_\_\_\_ middle

 \_\_\_\_\_ most common

1. The math teachers collected canned food donations for a local food bank. The results are shown in the table below.

|  |  |
| --- | --- |
| Math Teacher | # of Cans of Food |
| Ms. Belardinelli | 39 |
| Mrs. Carrera | 54 |
| Ms. Lafayette | 73 |
| Ms. Sailor | 62 |
| Mrs. Johnson | ? |

Which number could be added to the set of data in order for the median and mode to be equal?

A 58

B 73

C 39

D 62

1. Lizzy may choose 3 treats from 4 possibilities: Rice Crispy Treat (R), bubblegum (B), lollipop (L), and a giant chocolate chip cookie (C). Which list shows all of the possible combinations of 3 treats that Lizzy could choose?

A RBL, RBC, RLC, BLC, BRL, BRC

B RBL, RBC, BLC

C RBL, RBC, RLC, BLC

D RBL, RBC, RLC, BLC, BLR, BCR, LRB, LRC,

 LBC, CRB, CRL, CBL