

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

PROBABILITY

PERIOD: \_\_\_\_\_

### In-Class REVIEW

(Topic #7)

**Describe the likelihood of the event given its probability.**

1. The probability your favorite show is on tonight is 0. \_\_\_\_\_
2. 50% of the time you flip a coin you flip tails. \_\_\_\_\_
3. Your team wins the swim meet  $\frac{4}{5}$  of the time. \_\_\_\_\_
4. The probability that the cafeteria will have milk is 1. \_\_\_\_\_

**You randomly choose one song from a collection of 4 country songs, 2 jazz songs, 3 rock songs, and 1 pop song. Find the probability of the event. Write your answer as a fraction in simplest form.**

5. Choosing a jazz song \_\_\_\_\_
6. Choosing a pop song \_\_\_\_\_
7. *Not* choosing a country song \_\_\_\_\_
8. Choosing a blues song \_\_\_\_\_
9. Choosing a country or a pop song \_\_\_\_\_



19. There are 345 bananas. The probability of randomly selecting a banana that is bruised is 0.4. How many of the bananas are bruised?

20. There are 64 cookies in a jar. The probability of randomly choosing an oatmeal cookie from the jar is 37.5%. How many of the cookies are *not* oatmeal cookies?

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

PROBABILITY

PERIOD: \_\_\_\_\_

## **HOMEWORK – (Topic #7)**

### **Review**

**Describe the likelihood of the event given its probability.**

1. The school bus arrives late  $\frac{2}{7}$  of the time. \_\_\_\_\_
2. The probability that it rains during a hurricane is 1. \_\_\_\_\_
3. There is an 85% chance that you will go to the concert. \_\_\_\_\_
4. You take the bus home from school  $\frac{1}{4}$  of the time. \_\_\_\_\_

**You and your friends decide to play hide-and-seek. In a plastic container, there are 2 blue flashlights, 4 green flashlights, 1 red flashlight, 3 white flashlights, and 2 black flashlights. Find the theoretical probability of the event. Write your answer as a fraction in simplest form.**

5. Choosing a green flashlight \_\_\_\_\_
6. Choosing a black flashlight \_\_\_\_\_
7. Choosing a red flashlight \_\_\_\_\_
8. Choosing a flashlight that is *not* blue \_\_\_\_\_
9. The theoretical probability of choosing a green marble is  $\frac{1}{3}$ . If there are 6 marbles in the bag, how many marbles would you expect to be green?

***Show your work below.***

You have two sticks. Each stick has one blue side and one pink side. You throw the sticks 10 times and record the results. Use the table to find the experimental probability of the event.

Outcome	Frequency
2 blue	1
2 pink	3
1 blue, 1 pink	6

10. P (tossing 2 pink) \_\_\_\_\_
11. P (Tossing 1 blue and 1 pink) \_\_\_\_\_
12. P (Not tossing all pink) \_\_\_\_\_

You check 30 containers of yogurt. Seven of them have an expiration date within the next 3 days.

13. What is the experimental probability that a container of yogurt will have an expiration date within the next 3 days?
14. Out of 120 containers of yogurt, how many would you expect to have an expiration date within the next 3 days?

**Show your work below.**

NAME: \_\_\_\_\_

KEY

DATE: \_\_\_\_\_

PROBABILITY

PERIOD: \_\_\_\_\_

**In-Class REVIEW****(Topic #7)****Describe the likelihood of the event given its probability.**

1. The probability your favorite show is on tonight is 0. impossible
2. 50% of the time you flip a coin you flip tails. as likely as not
3. Your team wins the swim meet  $\frac{4}{5}$  of the time. likely
4. The probability that the cafeteria will have milk is 1. certain

**You randomly choose one song from a collection of 4 country songs, 2 jazz songs, 3 rock songs, and 1 pop song. Find the probability of the event. Write your answer as a fraction in simplest form.**

TOTAL = 10

5. Choosing a jazz song  $\frac{2}{10} = \frac{1}{5}$
6. Choosing a pop song  $\frac{1}{10}$
7. *Not* choosing a country song  $\frac{6}{10} = \frac{3}{5}$
8. Choosing a blues song  $\frac{0}{10} = 0$
9. Choosing a country or a pop song  $\frac{5}{10} = \frac{1}{2}$   
4 + 1

50

The bar graph shows the results of rolling a number cube ~~300~~ times. Find the experimental probability of each event. Write your answer as a fraction in simplest form.

10. P (odd number)  $\frac{26}{50} = \frac{13}{25}$

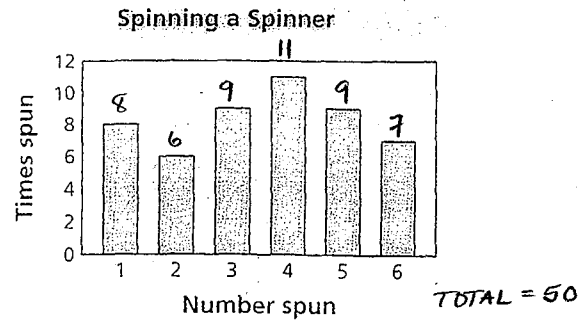
11. P (multiple of 2)  $\frac{24}{50} = \frac{12}{25}$

12. P (number greater than 1)  $\frac{42}{50} = \frac{21}{25}$

13. P (1 or 2)  $\frac{14}{50} = \frac{7}{25}$

14. P (prime number)  $\frac{24}{50} = \frac{12}{25}$

15. P (not 5)  $\frac{41}{50}$



You randomly pick a nut from a can of mixed nuts 20 times and record the results: 5 almonds, 6 peanuts, 2 hazelnuts, 3 pecans, and 4 cashews. You pour 50 nuts into a bowl.

16. How many peanuts would you expect to be in the bowl?

$$\frac{6}{20} = \frac{x}{50}$$

$$20x = 6(50)$$

$$\frac{20x}{20} = \frac{300}{20}$$

$$x = 15 \text{ peanuts}$$

17. How many almonds and pecans would you expect to be in the bowl?

$$\frac{8}{20} = \frac{x}{50}$$

$$20x = 8(50)$$

$$\frac{20x}{20} = \frac{400}{20}$$

$$x = 20 \text{ almonds } \frac{3}{20} \text{ pecans}$$

18. How many nuts that are not a peanut would you expect to be in the bowl?

$$20 - 6 = 14 \text{ not peanut}$$

$$\frac{14}{20} = \frac{x}{50}$$

$$20x = 14(50)$$

$$\frac{20x}{20} = \frac{700}{20}$$

$$x = 35$$

19. There are 345 bananas. The probability of randomly selecting a banana that is bruised is 0.4. How many of the bananas are bruised?

$$0.4 = \frac{4}{10}$$

$$\frac{4}{10} = \frac{x}{345}$$

$$10x = 4(345)$$

$$\frac{10x}{10} = \frac{1380}{10}$$

$$x = 138$$

20. There are 64 cookies in a jar. The probability of randomly choosing an oatmeal cookie from the jar is 37.5%. How many of the cookies are *not* oatmeal cookies?

$$\frac{37.5}{100} = \frac{x}{64}$$

$$100x = 64(37.5)$$

$$\frac{100x}{100} = \frac{2400}{100}$$

$$x = 24 \text{ oatmeal}$$

$$100\% - 37.5\% = 62.5\%$$

$$\frac{62.5}{100} = \frac{x}{64}$$

or

$$64 - 24 = \underline{\underline{40}} \text{ not oatmeal}$$





**HOMEWORK - (Topic #7)**

**Review**

**Describe the likelihood of the event given its probability.**

1. The school bus arrives late  $\frac{2}{7}$  of the time. unlikely
2. The probability that it rains during a hurricane is 1. certain
3. There is an 85% chance that you will go to the concert. likely
4. You take the bus home from school  $\frac{1}{4}$  of the time. unlikely

**You and your friends decide to play hide-and-seek. In a plastic container, there are 2 blue flashlights, 4 green flashlights, 1 red flashlight, 3 white flashlights, and 2 black flashlights. Find the theoretical probability of the event. Write your answer as a fraction in simplest form.**

TOTAL = 12

5. Choosing a green flashlight  $\frac{4}{12} = \frac{1}{3}$
6. Choosing a black flashlight  $\frac{2}{12} = \frac{1}{6}$
7. Choosing a red flashlight  $\frac{1}{12}$
8. Choosing a flashlight that is *not* blue  $\frac{10}{12} = \frac{5}{6}$   
 $12 - 2 = 10$
9. The theoretical probability of choosing a green marble is  $\frac{1}{3}$ . If there are 6 marbles in the bag, how many marbles would you expect to be green?

**Show your work below.**

$$\left( \frac{\text{Green}}{\text{TOTAL}} \right) \frac{1}{3} = \frac{x}{6}$$

$$3x = 6(1)$$

$$\frac{3x}{3} = \frac{6}{3}$$

$$x = 2$$

2 green marbles

You have two sticks. Each stick has one blue side and one pink side. You throw the sticks 10 times and record the results. Use the table to find the experimental probability of the event.

Outcome	Frequency
2 blue	1
2 pink	3
1 blue, 1 pink	6

TOTAL = 10

10. P (tossing 2 pink)  $\frac{3}{10}$

11. P (Tossing 1 blue and 1 pink)  $\frac{6}{10} = \frac{3}{5}$

12. P (Not tossing all pink)  $\frac{7}{10}$

$10 - 3 = 7$

You check 30 containers of yogurt. Seven of them have an expiration date within the next 3 days.

13. What is the experimental probability that a container of yogurt will have an expiration date within the next 3 days?

$$\text{exp } P(\text{expiration date w/n next 3 days}) = \frac{7}{30}$$

14. Out of 120 containers of yogurt, how many would you expect to have an expiration date within the next 3 days?

Show your work below.

$$\frac{7}{30} = \frac{x}{120}$$

$$30x = 7(120)$$

$$\frac{30x}{30} = \frac{840}{30}$$

$$x = 28$$

28 containers of yogurt