

Name _____

Date _____

Class _____

10.3 A Practice: Experimental & Theoretical Probability

You have four sticks. Two sticks have one blue side and one pink side. One stick has 2 blue sides. One stick has 2 pink sides. You throw the sticks 20 times and record the results. Use the table to find the experimental probability of the event.

Outcome	Frequency
3 blue, 1 pink	7
2 blue, 2 pink	9
1 blue, 3 pink	4

1. $P(\text{Tossing 1 pink and 3 blue}) =$ _____
2. $P(\text{Tossing the same number of blue and pink}) =$ _____
3. $P(\text{Not tossing 3 pink}) =$ _____
4. $P(\text{Tossing at most 2 blue}) =$ _____
5. You check 30 containers of yogurt.
Seven of them have an expiration date within the next 3 days.
 - a. What is the experimental probability that a container of yogurt will have an expiration date within the next 3 days?
 - b. Out of 120 containers of yogurt, how many would you expect to have an expiration date within the next 3 days?
6. The plant produces 1200 packages of grapes. An inspector randomly chooses 24 packages and discovers that 8 of the packages have broken seals. How many of the 1200 packages of grapes would you expect to have broken seals?

7. You flip 3 coins 50 times, and flipping 3 tails occurs 6 times.
- a. What words above refer to the *total number of trials*? _____
What is the total number of trials? _____
- b. What words above refer to the *number of times the event occurs*? _____
How many times does the event occur? _____
- c. What words above refer to the *event*? _____
What is the event? _____
- d. What is the experimental probability that you flip 3 tails?
- e. How many times would you expect to flip 3 tails out of 200 trials of flipping 3 coins?