Name Date

Practice A

10.3

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 |

1. Tossing 2 pink

2. Tossing 1 blue and 1 pink

3. *Not* tossing all pink

4. You check 15 bananas. Six of the bananas are bruised.

a. What is the experimental probability that a banana is bruised?

b. What is the experimental probability that a banana is *not* bruised?

5. Sixteen students have cell phones. Five of the cell phones have touch screens.

a. What is the experimental probability that a student’s cell phone has   
a touch screen?

b. Out of 144 students’ cell phones, how many would you expect   
to have touch screens?

You flip a coin twice. You repeat this process   
12 times. The table gives the results.

|  |  |
| --- | --- |
| **Outcome** | **Frequency** |
| 2 Heads | 2 |
| 1 Head, 1 Tail | 7 |
| 2 Tails | 3 |

6. Use the first table to find the experimental   
probability of each outcome.

7. Based upon experimental probability, which   
outcome is most likely?

8. The second table gives the possible outcomes of  
flipping a coin twice. Each of these outcomes is  
equally likely. What is the theoretical probability   
of flipping 1 tail?

|  |  |
| --- | --- |
| **1st Flip** | **2nd Flip** |
| Head | Head |
| Head | Tail |
| Tail | Head |
| Tail | Tail |

9. Compare your answers to Exercises 7 and 8.

Name Date

Practice B

10.3

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. Tossing 1 pink and 3 blue

2. Tossing the same number of blue and pink

3. *Not* tossing 3 pink

4. 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*?

b. What words above refer to the *number of times the event occurs*?

c. What words above refer to 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?