

# Probability



As a class or in small groups, roll 2 dice 12 times and record your results below.

**a) List the 2-dice combinations you rolled below.**

- |           |           |           |
|-----------|-----------|-----------|
| 1. _____  | 2. _____  | 3. _____  |
| 4. _____  | 5. _____  | 6. _____  |
| 7. _____  | 8. _____  | 9. _____  |
| 10. _____ | 11. _____ | 12. _____ |

**b) For each 2-dice combination listed above, list the other different 2-dice combinations you could role to get that same total.**

- |           |           |           |
|-----------|-----------|-----------|
| 1. _____  | 2. _____  | 3. _____  |
| 4. _____  | 5. _____  | 6. _____  |
| 7. _____  | 8. _____  | 9. _____  |
| 10. _____ | 11. _____ | 12. _____ |

**c) For each 2-dice combination listed in section a), list the probability of rolling the total number using any 2 dice.**

- |           |           |           |
|-----------|-----------|-----------|
| 1. _____  | 2. _____  | 3. _____  |
| 4. _____  | 5. _____  | 6. _____  |
| 7. _____  | 8. _____  | 9. _____  |
| 10. _____ | 11. _____ | 12. _____ |

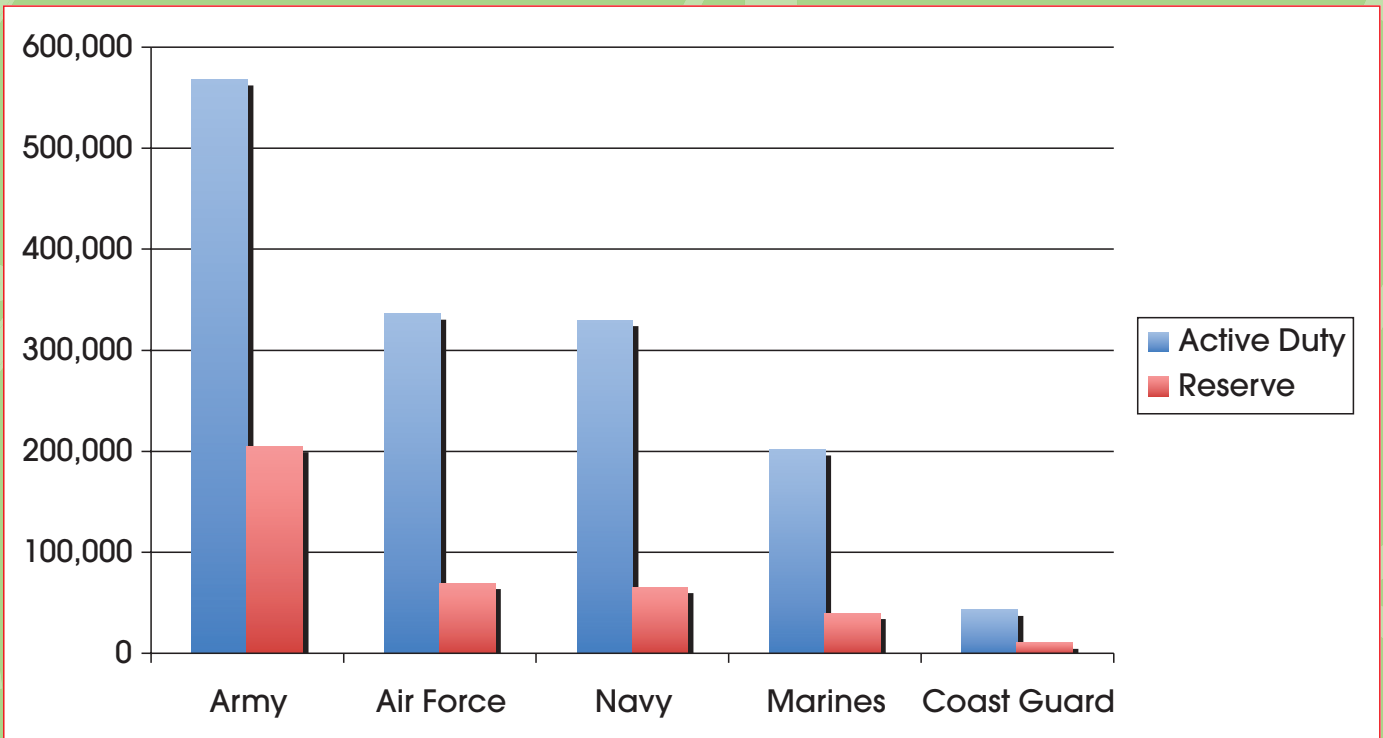
**d) List the probability of rolling the following totals with 2 dice.**

- |           |           |           |
|-----------|-----------|-----------|
| 1. _____  | 2. _____  | 3. _____  |
| 4. _____  | 5. _____  | 6. _____  |
| 7. _____  | 8. _____  | 9. _____  |
| 10. _____ | 11. _____ | 12. _____ |

# Ordering



The graph below shows the size of the U.S. military forces. Working with a partner or in a small group, use this graph to complete the activity.



a) List the armed forces active duty sizes from least to greatest.

\_\_\_\_\_

b) List the armed forces reserved sizes from least to greatest.

\_\_\_\_\_

c) List three comparisons that can be drawn between the armed forces.

\_\_\_\_\_

d) List four conclusions that can be drawn from this data.

\_\_\_\_\_

# Proportions and Fractions



The tally chart below shows how people responded to a question about ice cream flavors. Work with a partner or small group to answer the questions below.



Flavor	Student's responding
Vanilla	/////
Chocolate	/////    /////
Butternut	///
Mint	/////    /
Rocky road	//
Watermelon	///

- a) What question might students have been asked in order to get the results shown on this chart?
- \_\_\_\_\_
- b) List the flavors in order from most votes to least votes.
- \_\_\_\_\_
- c) Identify how many students were asked to participate in this chart.
- \_\_\_\_\_
- d) Make three proportions for this chart (example, what is the ratio of students who chose chocolate to students who chose watermelon).
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- e) Make three fractions based on this chart (example, what fraction of the total students selected rocky road).
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- f) As a group, decide what type of graph best shows this data. Then, put this data into the graph.