

**Choose the correct answer.****For 1–4, use the following information.**

Chase's family is planning a trip from Atlanta to Los Angeles. On the way, they will stop in Houston.

From Atlanta to Houston, they can go by bus (B), plane (P), or train (T).

From Houston to Los Angeles, they can go by train (T) or bus (B).

From Los Angeles back to Atlanta, they can go by plane (P) or train (T).

- 1 If they go from Atlanta to Houston by bus, how many different ways could they travel on the trip? List the ways.

**4 ways; B-T-P, B-T-T, B-B-P, B-B-T**

- 2 If they go from Houston to Los Angeles by train, how many different ways could they travel on the trip? List the ways.

**6 ways; B-T-P, P-T-P, T-T-P, B-T-T, P-T-T, T-T-T**

- 3 If they go by bus from Atlanta to Houston and then by bus again from Houston to Los Angeles, how many different ways could they travel on the trip?

**2 ways; B-B-T, B-B-P**

- 4 How many different ways in all could they travel on the trip?

**12 ways**

**For 5–9, use the set of cards.**

There are 9 cards. You turn them over, mix them up, and pick one without looking. Describe the event as *impossible*, *unlikely*, *likely*, or *certain*.

0	1	2	3	4	5	6	7	8
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- 5 You pick a number greater than 6.

**unlikely**

- 6 You pick a number less than 9.

**certain**

- 7 You pick a number that is not greater than 5.

**likely**

**For 8–9, write the probability.**

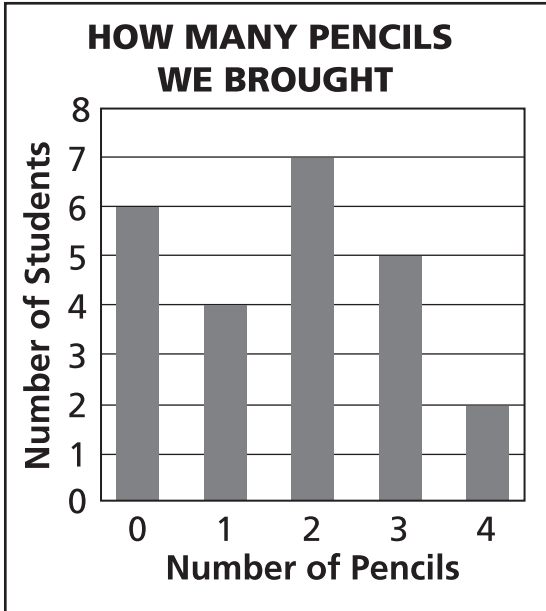
- 8 You pick an odd number.

**$\frac{4}{9}$**

- 9 You pick a number that is a multiple of 3.

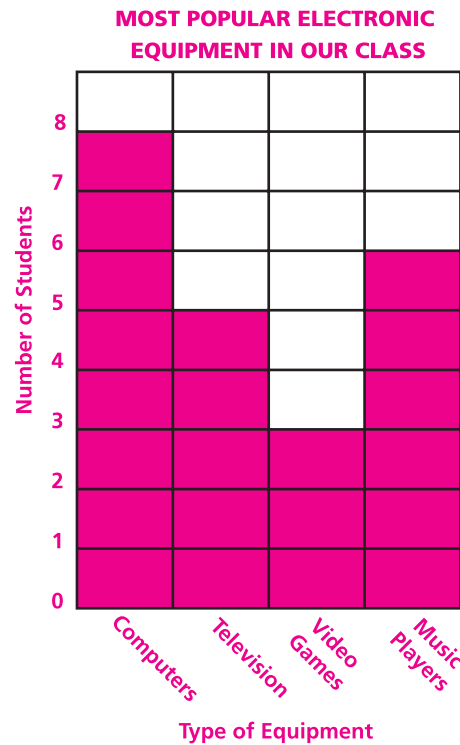
**$\frac{2}{9}$**

**For 10–13, use the bar graph. It shows data on the number of pencils Mr. Tomita’s students brought to class on Tuesday.**



- 10 How many students brought pencils?  
18 students
- 11 How many students brought at least 2 pencils?  
14 students
- 12 How many more students were there who brought pencils than students who did not bring any?  
12 more
- 13 How many students who brought pencils brought fewer than 3?  
11 students

14 Mr. Brown’s class took a survey to find out what was the most popular type of electronic equipment in the class. Eight students said computers, 5 students said television, 3 students said video games, and 6 students said music players. Use the grid to draw a bar graph of the data. Be sure to label the axes and give the graph a title.



**Answers may vary; a possible answer is given.**