

Blizzard Bag Math II
Day 3

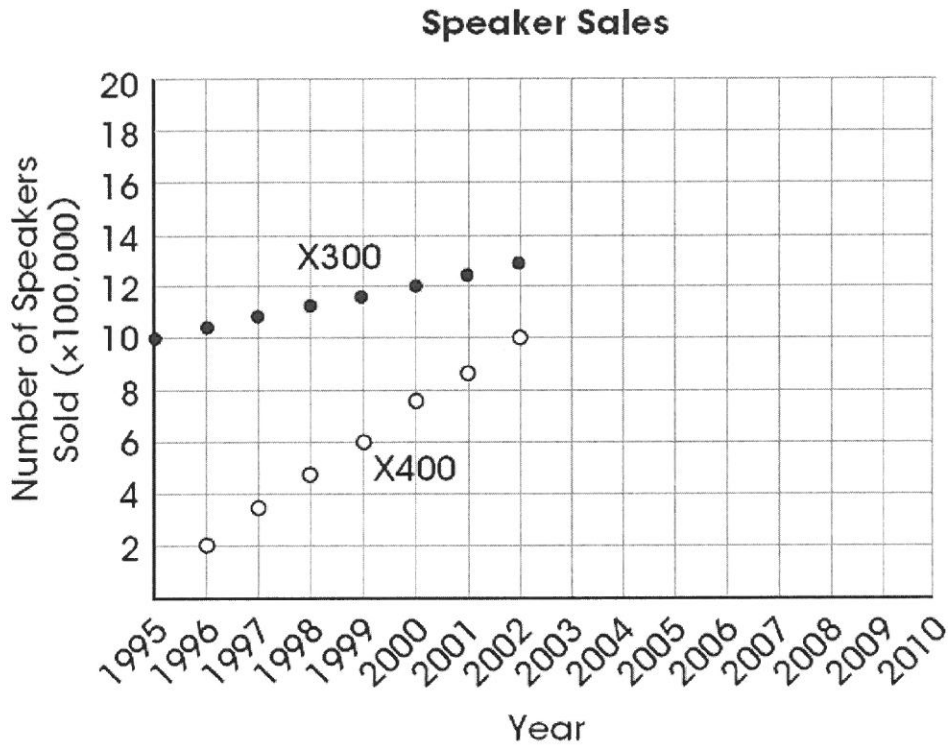
Name: _____ Date: _____ Block: 2#4

3. A restaurant manager is planning a survey to determine which three desserts are most preferred by his customers.

Which sample would best represent the customers at the restaurant?

- A. Survey all children who enter the restaurant.
- B. Survey all customers over 50 years old for one week.
- C. Survey all of the men that come into the restaurant for one week.
- D. Survey every fifth customer that enters the restaurant for one week.

6. The graph shows the total sales per year for the X300 and X400 speakers produced by an audio manufacturing company.



The manufacturer plans to discontinue the X300 speaker when the total sales for the X400 speaker are greater than the total sales for the X300 speaker.

Based on the trend in the graph, what is the earliest year that the sales of the X400 speaker will be greater than the sales of the X300 speaker?

- A. 2000
- B. 2003
- C. 2006
- D. 2009

8. One style of jacket comes in three sizes: small, medium or large. These jackets have either buttons or a zipper. The jackets are available in five different colors. How many different combinations of this jacket are available?

A. 10

B. 15

C. 25

D. 30

12. Mirachelle picked a colored cube from a bag of cubes, recorded the color and returned the cube to the bag. She did this 10 times. The table below shows the color of each cube as it was selected.

Color of Cube

Pick	Color
1	yellow
2	brown
3	green
4	yellow
5	orange
6	yellow
7	green
8	brown
9	yellow
10	green

Using the information from the table, how many times would a yellow cube be expected in 30 picks?

- A. 4
- B. 10
- C. 12
- D. 30

15. Weekly salaries of the employees at a local video store are shown in the table below.

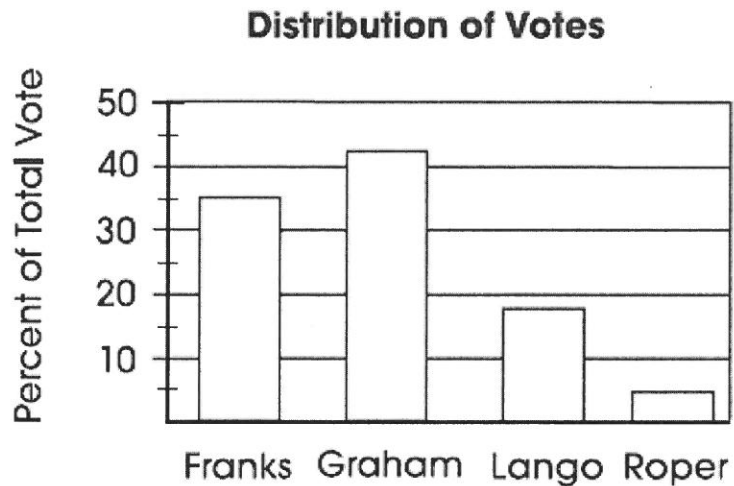
Weekly Salaries at Video Store

Weekly Salaries	Number of Employees at this Salary
\$1,000	1
\$ 500	2
\$ 350	4
\$ 120	8
\$ 80	6

What is the mean weekly salary at this video store?

- A. \$230.48
- B. \$242.00
- C. \$322.67
- D. \$350.00

18. The graph shows the percent of the total votes cast for each of the four candidates in Andersonville's city council election.



If 2,542 people voted in this election, about how many votes did Lango receive?

- A. 76
- B. 141
- C. 458
- D. 915

22. The transportation department has selected three possible routes for a new section of highway and wants to know which route landowners and residents of the affected areas prefer. The transportation department plans to survey the public by posting the three possible routes on the department's Web site with a request that all visitors to the Web site vote for their preferred route.

In your **Answer Document**, explain why the design of the survey does **not** provide a representative sample of the landowners and residents of the affected area. Give an example of how the design of the survey could be changed to better represent the affected population.

32. Joel plays tic-tac-toe on his computer. The computer plays first and randomly places an "X" in one of the grid squares as labeled in the diagram.

A	B	C
D	E	F
G	H	I

The frequency table shows the computer's first move for 50 games.

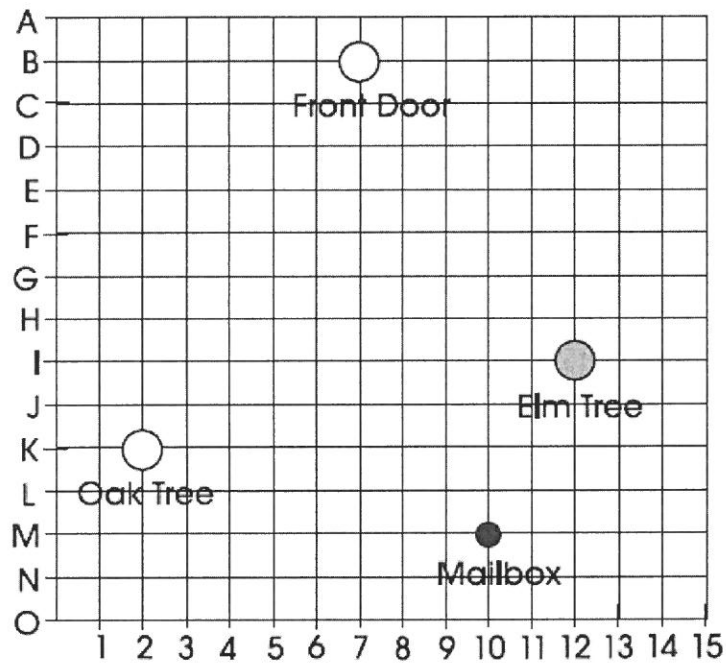
Computer's First Move (50 Games)

Location on Grid	A	B	C	D	E	F	G	H	I
Number of Games	5	3	8	2	8	3	6	8	7

Based on these results, what is the experimental probability that the computer will place an "X" in a corner square on the first move of its next game?

- A. $\frac{4}{9}$
- B. $\frac{19}{59}$
- C. $\frac{9}{25}$
- D. $\frac{13}{25}$

39. In honor of the new millennium, Stephanie buried a time capsule in her front yard. She sketched the location of key landmarks as shown below. She noted that the capsule was buried equidistant from the oak tree and the elm tree. It is also equidistant from the mailbox and the front door.



Which pair of coordinates is the closest estimate for the location of the time capsule?

- A. (4, G)
- B. (7, H)
- C. (8, G)
- D. (10, H)

43. Drake's school awarded 450 raffle tickets as incentives. The principal will draw one winning ticket. The winner will receive a CD player. Drake received 3 tickets for good attendance, 5 for making the honor roll, and 2 for tutoring other students.

What is the probability that one of Drake's tickets will be selected by the principal?

A. $\frac{1}{15}$

B. $\frac{1}{45}$

C. $\frac{1}{441}$

D. $\frac{1}{450}$