

Question 4
Benchmark A
May 2009

4. The school principal plans to buy new equipment for the school's playground. He wants to know what equipment will be most popular for the students, but he does not have time to survey all the students in the school.

Which group should the principal survey to get the best results?

- A. a group of 50 parents
- B. all the first-graders
- C. five students from each class
- D. 30 boys in the cafeteria

Question 2
Benchmark A
March 2006

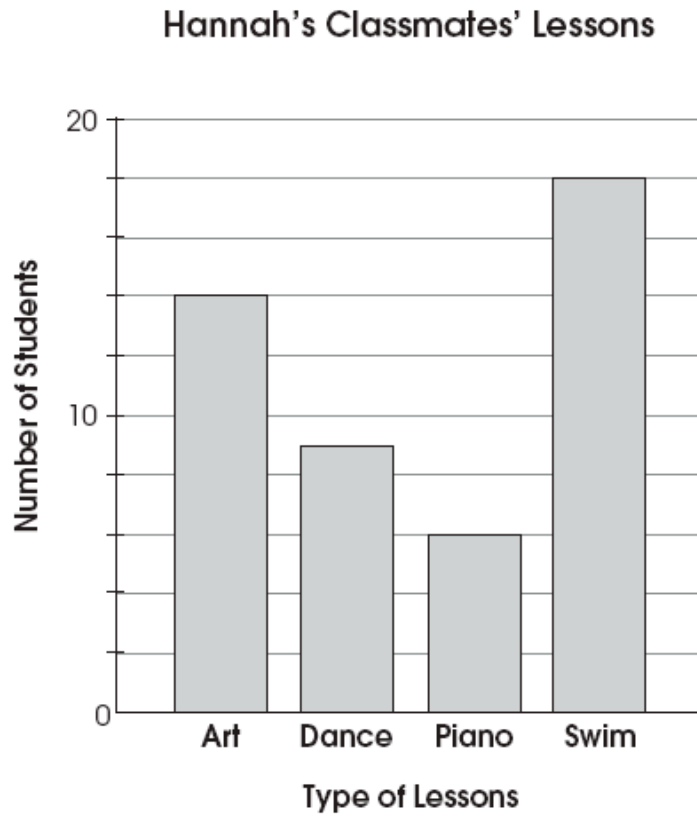
Alan will be gathering data about the temperature.

Which part of Alan's data collection plan should come first?

- A. create a graph to display the data
- B. record the data
- C. choose a place and time to collect the data each day
- D. interpret the data

Question 45
Benchmark B
May 2009

45. Hannah constructed this bar graph to show how many of her classmates take art, dance, piano, or swim lessons.

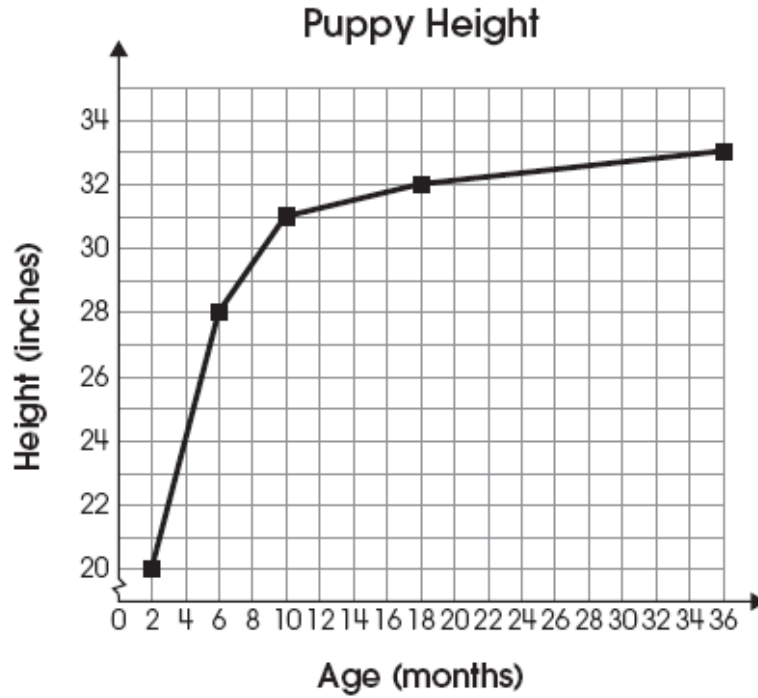


How many more of her classmates take art than piano?

- A. 4
- B. 6
- C. 8
- D. 14

Question 7
Benchmark B
March 2008

The line graph shows the height of a puppy as it gets older.



Which table represents these data?

A.

Age (months)	Height (inches)
1	1
3	9
6	12
9	13
18	14

B.

Age (months)	Height (inches)
1	20
3	28
6	31
9	32
18	33

C.

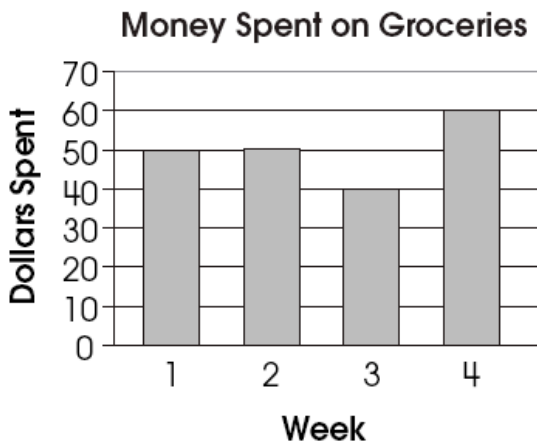
Age (months)	Height (inches)
2	20
6	28
10	31
18	32
36	33

D.

Age (months)	Height (inches)
20	2
28	6
31	10
32	18
33	36

Question 28
Benchmark B
Spring 2007

Ken goes grocery shopping once a week and keeps track of how much money he spends. He made a bar graph and a line plot to display these data.



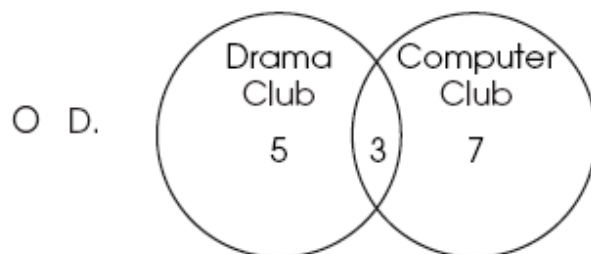
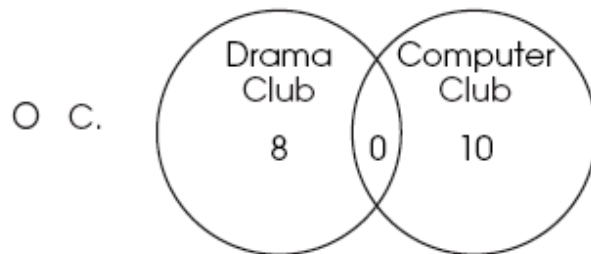
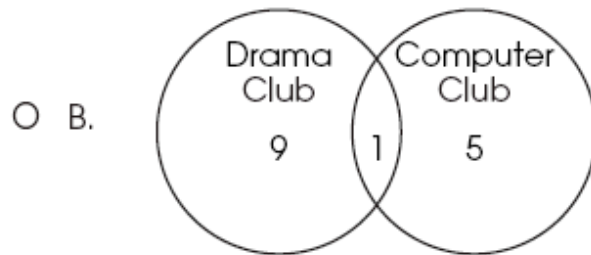
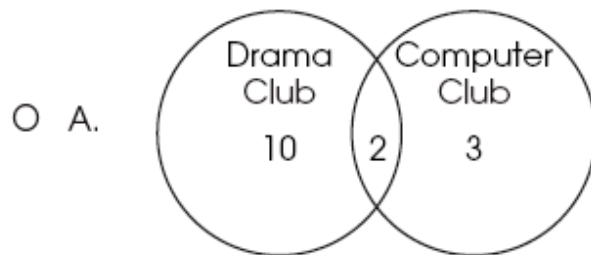
What information can be found only on the bar graph?

- A. the number of weeks he shopped
- B. the week he spent the least money
- C. the most money he spent in one week
- D. the least money he spent in one week

Question 35
Benchmark C
Spring 2007


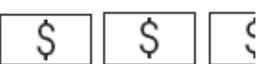

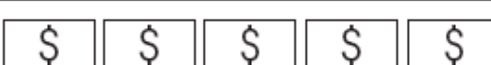
Mrs. Allen has 15 students. Eight students belong to the drama club and 10 students belong to the computer club. Some students belong to both clubs.


Which Venn diagram represents these data?



Question 13
Benchmark D
May 2009

13. The picture graph shows the amount of money four different classes earned selling cookies.

Class	Amount of Money Earned
1	
2	
3	
4	

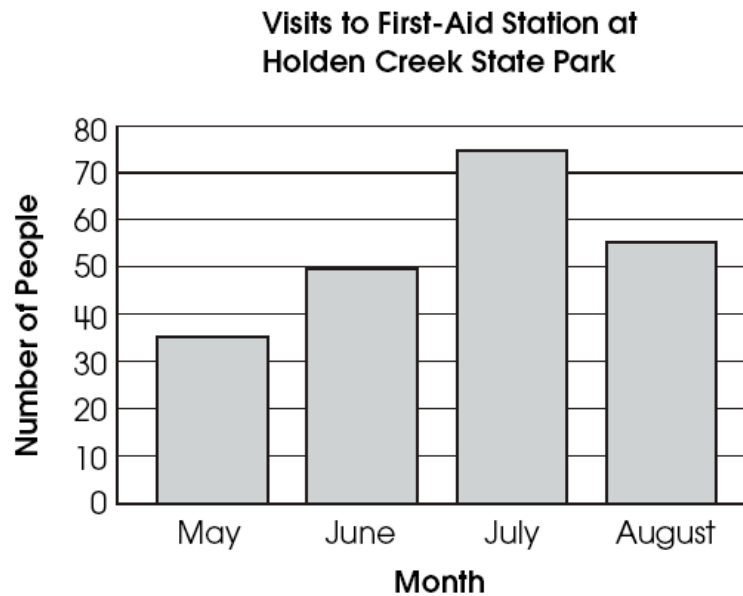
 = \$10

What is the difference between the amount of money class 4 earned and the amount of money class 2 earned?

- A. \$10
- B. \$15
- C. \$25
- D. \$35

Question 27
Benchmark D
March 2006

27. The bar graph shows the number of people who visited the first-aid station at Holden Creek State Park each month last summer.



How many more people visited the first-aid station in July than in May?

- A. 15 people
- B. 20 people
- C. 40 people
- D. 110 people

4th Grade Mathematics Ohio Achievement Test
Data Analysis and Probability Standard

Question 20
Benchmark E
March 2006

Reuben recorded the heights of 7 boys and 7 girls in his class in the table shown.

Height (in inches)	
Boys	Girls
47	49
50	50
51	52
53	55
53	56
55	56
58	58

Calculate the range, the median and the mode for the height of the boys and for the height of the girls.

Range:

Boys _____

Girls _____

Median:

Boys _____

Girls _____

Mode:

Boys _____

Girls _____

4th Grade Mathematics Ohio Achievement Test
Data Analysis and Probability Standard

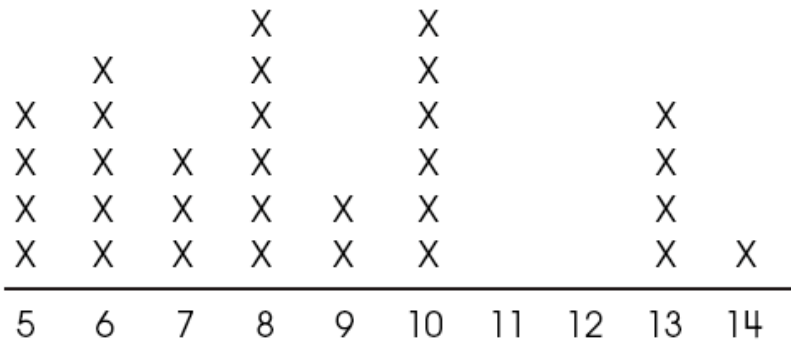
Use the range, median or mode to compare the heights of the boys and the girls and tell which group you think is taller.

Explain how you made your choice.

Question 37
Benchmark E
March 2006

Andrea made a line plot of the ages of children at summer camp.

Ages of Children at Summer Camp



Which is true about the data in the line plot?

- A. The data are spread out evenly.
- B. The data have a hole between 10 and 13.
- C. There is a clump of data between 10 and 13.
- D. The range and the median are the same.

Question 8
Benchmark E
Spring 2007

Fred recorded the heights, in inches, of the students in his class. The range of the data was 15.

Which statement is true about Fred's data?

- A. Fred found that 15 students are all the same height.
- B. The height of the shortest student is 15 inches.
- C. Fred recorded the heights of 15 students in his class.
- D. The tallest student is 15 inches taller than the shortest student.

Question 10
Benchmark F
May 2009

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10. Phil has a bag with 1 red tile, 12 yellow tiles, 1 blue tile, and 6 green tiles. He draws one tile from the bag without looking.

List the colors in the order of the likelihood of Phil's drawing each of the colored tiles. Use words, numbers or a diagram to explain your answer.

Question 12
Benchmark F
March 2008

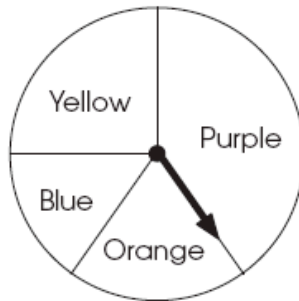
Jerry tossed a penny 5 times.

What is the likelihood that the penny landed on heads all 5 times?

- A. certain
- B. impossible
- C. possible and likely
- D. possible but unlikely

Question 26
Benchmark F
March 2008

26. Zach has the spinner shown.



Which statement is true about the spinner?

- A. The spinner is equally likely to land on purple and yellow.
- B. The spinner is more likely to land on orange than purple.
- C. The spinner is less likely to land on yellow than blue.
- D. The spinner is more likely to land on purple than on yellow.

Question 30
Benchmark F
March 2006

The table shows the number of different-colored tiles Anita placed in a bag.

Tiles in Bag

Color	Number of Tiles in Bag
Red	6
Blue	11
Yellow	15
Green	5

Anita picked one tile from the bag without looking.

Which shows the colors listed in order from the least likely to be picked to the most likely?

- A. green, red, yellow, blue
- B. green, red, blue, yellow
- C. yellow, blue, green, red
- D. red, blue, yellow, green

Question 4
Benchmark G
March 2008

Megan uses the sign shown to order a sandwich.

Lunch Choices

Bread	Meat	Cheese
White	Turkey	American
Rye	Chicken	Cheddar
		Swiss

What type of sandwich might she order if she does not like chicken and she does not like cheddar cheese?

- A. white bread, chicken, Swiss cheese
- B. rye bread, turkey, cheddar cheese
- C. white bread, turkey, American cheese
- D. rye bread, chicken, American cheese

Question 46
Benchmark G
March 2006

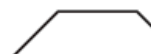
Calvin plans to plant one type of flower and one type of vegetable in his garden. He chooses the plants from the table shown.

Plants

Flowers	Vegetables
Roses	Carrots
Tulips	Peas

Which list shows all the different combinations of one flower and one vegetable that Calvin can plant?

- A. roses and carrots, roses and peas
- B. roses and carrots, roses and peas, tulips and carrots, tulips and peas
- C. roses and carrots, tulips and peas, roses and tulips, carrots and peas
- D. roses and carrots, roses and peas, roses and tulips, tulips and carrots, tulips and peas, carrots and peas



Question 15
Benchmark G
Spring 2007

Raymond has these notebooks and pens in his backpack.

Raymond's Backpack

Notebook	Pens
Science	blue
Reading	green
Writing	red

List all the possible combinations of one notebook and one pen that Raymond could take from his backpack.

Question 8
Benchmark H
March 2006

Which spinner has a probability of 0 for landing on a star, ☆?

