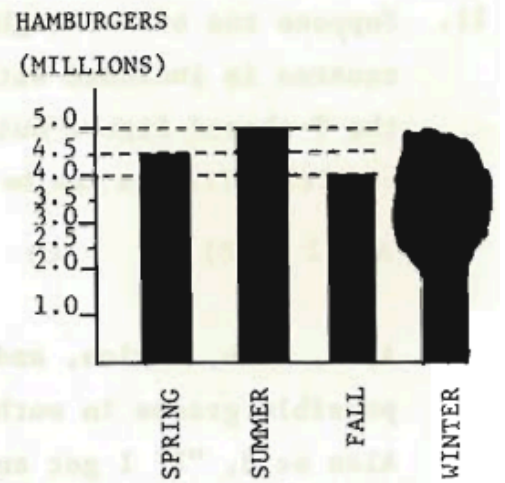## 1986 Q16

16. A bar graph shows the number of hamburgers sold by a fast food chain each season. However, the bar indicating the number sold during the winter is covered by a smudge. If exactly 25% of the chain's hamburgers are sold in the fall, how many million hamburgers are sold in the winter?

HAMBURGERS (MILLIONS)

5.0
4.5
4.0
3.5
3.0
2.5
2.0

1.0

SPRING SUMMER FALL WINTER

A) 2.5 B) 3 C) 3.5 D) 4 E) 4.5

1999 Q16

16. Tori's mathematics test had 75 problems: 10 arithmetic, 30 algebra, and 35 geometry problems. Although she answered 70% of the arithmetic, 40% of the algebra, and 60% of the geometry problems correctly, she did not pass the test because she got less than 60% of the problems right. How many more questions would she have needed to answer correctly to earn a 60% passing grade?

(A) 1 (B) 5 (C) 7 (D) 9 (E) 11

1997 Q16

16. Penni Precisely buys $100 worth of stock in each of three companies: Alabama Almonds, Boston Beans, and California Cauliflower. After one year, AA was up 20%, BB was down 25%, and CC was unchanged. For the second year, AA was down 20% from the previous year, BB was up 25% from the previous year, and CC was unchanged. If A, B, and C are the final values of the stock, then

(A) $A = B = C$ (B) $A = B < C$ (C) $C < B = A$

(D) $A < B < C$ (E) $B < A < C$

1995 Q17

17. The table below gives the percent of students in each grade at Annville and Cleona elementary schools:

	K	1	2	3	4	5	6
Annville :	16%	15%	15%	14%	13%	16%	11%
Cleona :	12%	15%	14%	13%	15%	14%	17%

Annville has 100 students and Cleona has 200 students. In the two schools combined, what percent of the students are in grade 6?

(A) 12%   (B) 13%   (C) 14%   (D) 15%   (E) 28%

2001 Q17

17. For the game show *Who Wants To Be A Millionaire?*, the dollar values of each question are shown in the following table (where K = 1000).

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Value	100	200	300	500	1K	2K	4K	8K	16K	32K	64K	125K	250K	500K	1000K

Between which two questions is the percent increase of the value the smallest?

(A) From 1 to 2   (B) From 2 to 3   (C) From 3 to 4
(D) From 11 to 12   (E) From 14 to 15

2007 Q17

17. A mixture of 30 liters of paint is 25% red tint, 30% yellow tint and 45% water. Five liters of yellow tint are added to the original mixture. What is the percent of yellow tint in the new mixture?

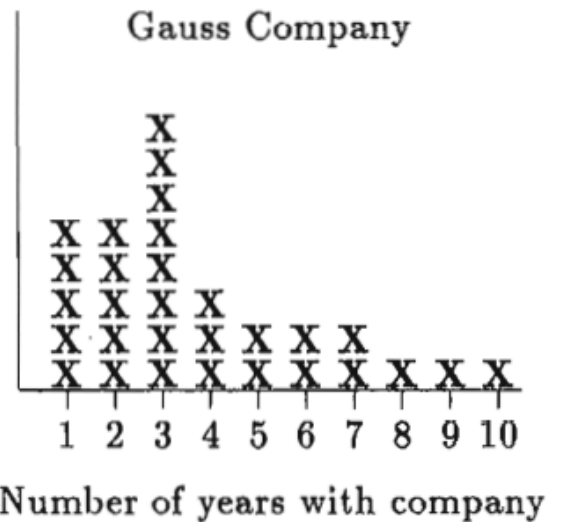(A) 25   (B) 35   (C) 40   (D) 45   (E) 50

1997 Q18

18. At the grocery store last week, small boxes of facial tissue were priced at 4 boxes for $5. This week they are on sale at 5 boxes for $4. The percent decrease in the price per box during the sale was closest to

(A) 30%   (B) 35%   (C) 40%   (D) 45%   (E) 65%

8 / 13

1991 Q18

18. The vertical axis indicates the number of employees, but the scale was accidentally omitted from this graph. What percent of the employees at the Gauss Company have worked there for 5 years or more?

(A) 9%   (B) $23\frac{1}{3}\%$

(C) 30%   (D) $42\frac{6}{7}\%$

(E) 50%

Gauss Company

```
    X
    X
    X
X X X
X X X
X X X X
X X X X X X X
X X X X X X X X X X
1 2 3 4 5 6 7 8 9 10
```

Number of years with company

9 / 13

1996 Q18

18. Ana's monthly salary was $2000 in May. In June she received a 20% raise. In July she received a 20% pay cut. After the two changes in June and July, Ana's monthly salary was

(A) $1920   (B) $1980   (C) $2000   (D) $2020   (E) $2040

10 / 13

4

1985 Q19

19. If the length and width of a rectangle are each increased by 10%, then the perimeter of the rectangle is increased by

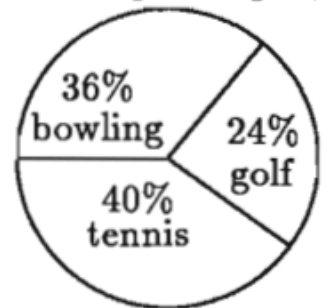   A) 1%   B) 10%   C) 20%   D) 21%   E) 40%

11 / 13

1996 Q19

19. The pie charts at the right indicate the percent of students who prefer golf, bowling, or tennis at East Junior High School and West Middle School. The total number of students at East is 2000 and at West, 2500. In the two schools combined, the percent of students who prefer tennis is

    (A) 30%   (B) 31%
    (C) 32%   (D) 33%   (E) 34%

22% tennis | 30% golf | 48% bowling
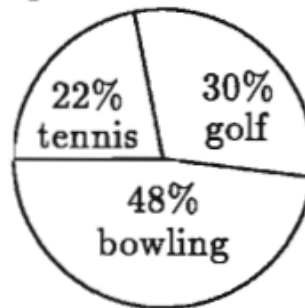
East JHS
2000 students

36% bowling | 24% golf | 40% tennis

West MS
2500 students

12 / 13

1988 Q20

20. The glass gauge on a cylindrical coffee maker shows there are 45 cups left when the coffee maker is 36% full. How many cups of coffee does it hold when it is full?

    A) 80   B) 100   C) 125

    D) 130   E) 262

5
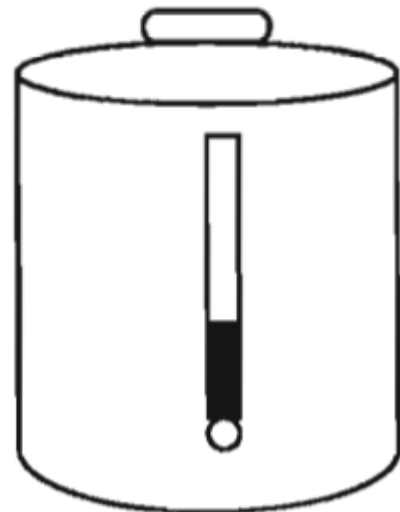
2007 Q20

20. Before district play, the Unicorns had won 45% of their basketball games. During district play, they won six more games and lost two, to finish the season having won half their games. How many games did the Unicorns play in all?

(A) 48   (B) 50   (C) 52   (D) 54   (E) 60