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2014 Q24

24. One day the Beverage Barn sold 252 cans of soda to 100 customers, and every customer bought at least one can of soda. What is the maximum possible median number of cans of soda bought per customer on that day?

(A) 2.5 **(B)** 3.0 **(C)** 3.5 **(D)** 4.0 **(E)** 4.5

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1986 Q24

24. The 600 students at King Middle School are divided into three groups of equal size for lunch. Each group has lunch at a different time. A computer randomly assigns each student to one of the three lunch groups. The probability that three friends, Al, Bob, and Carol, will be assigned to the same lunch group is approximately

A) $\frac{1}{27}$ B) $\frac{1}{9}$ C) $\frac{1}{8}$ D) $\frac{1}{6}$ E) $\frac{1}{3}$

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2007 Q24

24. A bag contains four pieces of paper, each labeled with one of the digits 1, 2, 3 or 4, with no repeats. Three of these pieces are drawn, one at a time without replacement, to construct a three-digit number. What is the probability that the three-digit number is a multiple of 3?

(A) $\frac{1}{4}$ **(B)** $\frac{1}{3}$ **(C)** $\frac{1}{2}$ **(D)** $\frac{2}{3}$ **(E)** $\frac{3}{4}$

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2008 Q24

24. Ten tiles numbered 1 through 10 are turned face down. One tile is turned up at random, and a die is rolled. What is the probability that the product of the numbers on the tile and the die will be a square?

(A) $\frac{1}{10}$ **(B)** $\frac{1}{6}$ **(C)** $\frac{11}{60}$ **(D)** $\frac{1}{5}$ **(E)** $\frac{7}{30}$

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1987 Q24

24. A multiple choice examination consists of 20 questions. The scoring is +5 for each correct answer, -2 for each incorrect answer, and 0 for each unanswered question. John's score on the examination is 48. What is the maximum number of questions he could have answered correctly?

A) 9 B) 10 C) 11 D) 12 E) 16

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1987 Q25

25. Ten balls numbered 1 to 10 are in a jar. Jack reaches into the jar and randomly removes one of the balls. Then Jill reaches into the jar and randomly removes a different ball. The probability that the sum of the two numbers on the balls removed is even is

A) $\frac{4}{9}$ B) $\frac{9}{19}$ C) $\frac{1}{2}$ D) $\frac{10}{19}$ E) $\frac{5}{9}$

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1986 Q25

25. Which of the following sets of whole numbers has the largest average?

A) multiples of 2 between 1 and 101 B) multiples of 3 between 1 and 101

C) multiples of 4 between 1 and 101 D) multiples of 5 between 1 and 101

E) multiples of 6 between 1 and 101

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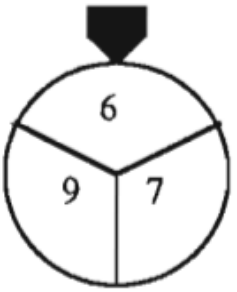
1989 Q25

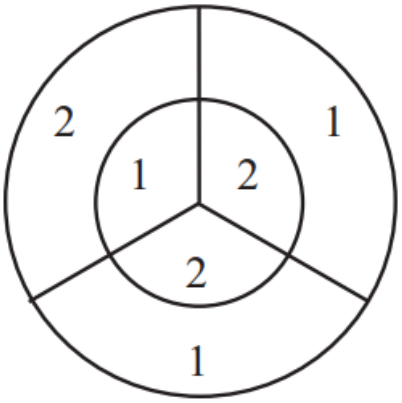
25. Every time these two wheels are spun, two numbers are selected by the pointers. What is the probability that the sum of the two selected numbers is even?

A) $\frac{1}{6}$ B) $\frac{3}{7}$ C) $\frac{1}{2}$ D) $\frac{2}{3}$ E) $\frac{5}{7}$



2007 Q25

25. On the dart board shown in the figure, the outer circle has radius 6 and the inner circle has radius 3. Three radii divide each circle into three congruent regions, with point values shown. The probability that a dart will hit a given region is proportional to the area of the region. When two darts hit this board, the score is the sum of the point values in the regions. What is the probability that the score is odd?



(A) $\frac{17}{36}$ **(B)** $\frac{35}{72}$ **(C)** $\frac{1}{2}$ **(D)** $\frac{37}{72}$ **(E)** $\frac{19}{36}$