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**2001 Q21**

21. The mean of a set of five different positive integers is 15. The median is 18. The maximum possible value of the largest of these five integers is
- (A) 19            (B) 24            (C) 32            (D) 35            (E) 40

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**2007 Q21**

21. Two cards are dealt from a deck of four red cards labeled  $A, B, C, D$  and four green cards labeled  $A, B, C, D$ . A winning pair is two of the same color or two of the same letter. What is the probability of drawing a winning pair?
- (A)  $\frac{2}{7}$             (B)  $\frac{3}{8}$             (C)  $\frac{1}{2}$             (D)  $\frac{4}{7}$             (E)  $\frac{5}{8}$

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**1989 Q21**

21. Jack had a bag of 128 apples. He sold 25% of them to Jill. Next he sold 25% of those remaining to June. Of those apples still in his bag, he gave the shiniest one to his teacher. How many apples did Jack have then?
- A) 7            B) 63            C) 65            D) 71            E) 111

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**2000 Q21**

21. Keiko tosses one penny and Ephraim tosses two pennies. The probability that Ephraim gets the same number of heads that Keiko gets is

- (A)  $\frac{1}{4}$     (B)  $\frac{3}{8}$     (C)  $\frac{1}{2}$     (D)  $\frac{2}{3}$     (E)  $\frac{3}{4}$

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**2002 Q21**

21. Harold tosses a nickel four times. The probability that he gets at least as many heads as tails is

- (A)  $\frac{5}{16}$     (B)  $\frac{3}{8}$     (C)  $\frac{1}{2}$     (D)  $\frac{5}{8}$     (E)  $\frac{11}{16}$



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**2016 Q21**

21. A box contains 3 red chips and 2 green chips. Chips are drawn randomly, one at a time without replacement, until all 3 of the reds are drawn or until both green chips are drawn. What is the probability that the 3 reds are drawn?

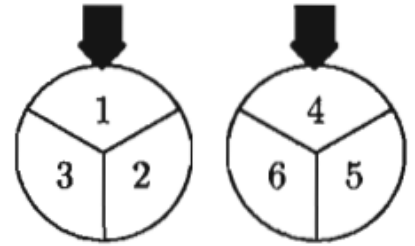
- (A)  $\frac{3}{10}$     (B)  $\frac{2}{5}$     (C)  $\frac{1}{2}$     (D)  $\frac{3}{5}$     (E)  $\frac{2}{3}$

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## 1991 Q22

22. Each spinner is divided into 3 equal parts. The results obtained from spinning the two spinners are multiplied. What is the probability that this product is an even number?

(A)  $\frac{1}{3}$     (B)  $\frac{1}{2}$     (C)  $\frac{2}{3}$     (D)  $\frac{7}{9}$     (E) 1

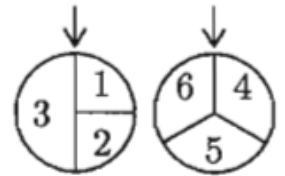


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## 1994 Q22

22. The two wheels shown at the right are spun and the two resulting numbers are added. The probability that the sum of the two numbers is even is

(A)  $\frac{1}{6}$     (B)  $\frac{1}{4}$     (C)  $\frac{1}{3}$     (D)  $\frac{5}{12}$     (E)  $\frac{4}{9}$



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## 1992 Q23

23. If two dice are tossed, the probability that the product of the numbers showing on the tops of the dice is greater than 10 is

(A)  $\frac{3}{7}$     (B)  $\frac{17}{36}$     (C)  $\frac{1}{2}$     (D)  $\frac{5}{8}$     (E)  $\frac{11}{12}$

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**2000 Q23**

23. There is a list of seven numbers. The average of the first four numbers is 5, and the average of the last four numbers is 8. If the average of all seven numbers is  $6\frac{4}{7}$ , then the number common to both sets of four numbers is

- (A)  $5\frac{3}{7}$       (B) 6      (C)  $6\frac{4}{7}$       (D) 7      (E)  $7\frac{3}{7}$