1 / 9

1991 Q11

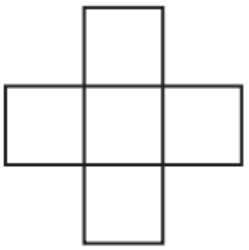
11. There are several sets of three different numbers whose sum is 15 which can be chosen from $\{1,2,3,4,5,6,7,8,9\}$. How many of these sets contain a 5?

(A) 3 **(B)** 4 **(C)** 5 **(D)** 6 **(E)** 7

2 / 9

1999 Q11

11. Each of the five numbers 1,4,7,10, and 13 is placed in one of the five squares so that the sum of the three numbers in the horizontal row equals the sum of the three numbers in the vertical column. The largest possible value for the horizontal or vertical sum is



(A) 20 **(B)** 21 **(C)** 22 **(D)** 24 **(E)** 30

3 / 9

2014 Q11

11. Jack wants to bike from his house to Jill's house, which is located three blocks east and two blocks north of Jack's house. After biking each block, Jack can continue either east or north, but he needs to avoid a dangerous intersection one block east and one block north of his house. In how many ways can he reach Jill's house by biking a total of five blocks?

(A) 4 **(B)** 5 **(C)** 6 **(D)** 8 **(E)** 10

4 / 9

2000 Q11

11. The number 64 has the property that it is divisible by its units digit. How many whole numbers between 10 and 50 have this property?

(A) 15 **(B)** 16 **(C)** 17 **(D)** 18 **(E)** 20

5 / 9

1990 Q12

12. There are twenty-four 4-digit whole numbers that use each of the four digits 2, 4, 5, and 7 exactly once. Listed in numerical order from smallest to largest, the number in the 17th position in the list is

A) 4527 B) 5724 C) 5742 D) 7245 E) 7524

6 / 9

1993 Q12

12. If each of the three operation signs, $+, -, \times$, is used exactly ONCE in one of the blanks in the expression

$$5 \_\_ 4 \_\_ 6 \_\_ 3$$

then the value of the result could equal

(A) 9 **(B)** 10 **(C)** 15 **(D)** 16 **(E)** 19

7 / 9

2017 Q13

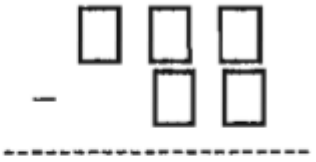
13. Peter, Emma, and Kyler played chess with each other. Peter won 4 games and lost 2 games. Emma won 3 games and lost 3 games. If Kyler lost 3 games, how many games did he win?

(A) 0 **(B)** 1 **(C)** 2 **(D)** 3 **(E)** 4

8 / 9

1989 Q14

14. When placing each of the digits 2,4,5,6,9 in exactly one of the boxes of this subtraction problem, what is the smallest difference that is possible?



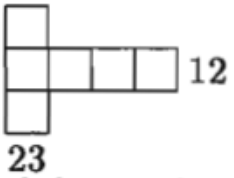
A) 58 B) 123 C) 149 D) 171 E) 176

9 / 9

1996 Q14

14. Six different digits from the set

$$\{1,2,3,4,5,6,7,8,9\}$$



are placed in the squares in the figure shown so that the sum of the entries in the vertical column is 23 and the sum of the entries in the horizontal row is 12. The sum of the six digits used is

(A) 27 (B) 29 (C) 31 (D) 33 (E) 35