1992 Q6

6. Suppose that means $a + b - c$. For example, is $5 + 4 - 6 = 3$.

Then the sum $+$ is

(A) -2 (B) -1 (C) 0 (D) 1 (E) 2

1993 Q6

6. A can of soup can feed 3 adults or 5 children. If there are 5 cans of soup and 15 children are fed, then how many adults would the remaining soup feed?

(A) 5   (B) 6   (C) 7   (D) 8   (E) 10

1994 Q6

6. The unit's digit (one's digit) of the product of any six consecutive positive whole numbers is

(A) 0   (B) 2   (C) 4   (D) 6   (E) 8

1

1996 Q6

6. What is the smallest result that can be obtained by the following process?
   - Choose three different numbers from the set $\{3, 5, 7, 11, 13, 17\}$.
   - Add two of these numbers.
   - Multiply their sum by the third number.

(A) 15   (B) 30   (C) 36   (D) 50   (E) 56

5 / 12

1996 Q7

7. Brent has goldfish that quadruple (become four times as many) every month, and Gretel has goldfish that double every month. If Brent has 4 goldfish at the same time that Gretel has 128 goldfish, then in how many months from that time will they have the same number of goldfish?

(A) 4   (B) 5   (C) 6   (D) 7   (E) 8

6 / 12

7. How many whole numbers are between $\sqrt{8}$ and $\sqrt{80}$?

A) 5   B) 6   C) 7   D) 8   E) 9

1986 Q7

1985 Q8

8. If $a = -2$, the largest number in the set $\left\{-3a,\ 4a,\ \dfrac{24}{a},\ a^2,\ 1\right\}$ is

A) $-3a$ B) $4a$ C) $\dfrac{24}{a}$ D) a^2 E) 1

1996 Q8

8. Points A and B are 10 units apart. Points B and C are 4 units apart. Points C and D are 3 units apart. If A and D are as close as possible, then the number of units between them is

(A) 0   (B) 3   (C) 9   (D) 11   (E) 17

9. Consider the operation $*$ defined by the following table:

$*$	1	2	3	4
1	1	2	3	4
2	2	4	1	3
3	3	1	4	2
4	4	3	2	1

For example, $3 * 2 = 1$. Then $(2 * 4) * (1 * 3) =$

1993 Q9

(A) 1   (B) 2   (C) 3   (D) 4   (E) 5
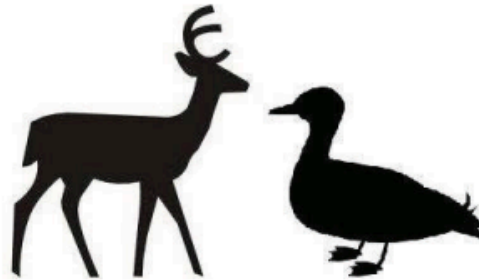
10 / 12

1996 Q9

9. If 5 times a number is 2, then 100 times the reciprocal of the number is

(A) 2.5   (B) 40   (C) 50   (D) 250   (E) 500

11 / 12

2012 Q9

9. The Fort Worth Zoo has a number of two-legged birds and a number of four-legged mammals. On one visit to the zoo, Margie counted 200 heads and 522 legs. How many of the animals that Margie counted were two-legged birds?

(A) 61   (B) 122   (C) 139   (D) 150   (E) 161

12 / 12

2016 Q10

10. Suppose that $a * b$ means $3a - b$. What is the value of x if

$$2 * (5 * x) = 1 ?$$

(A) $\dfrac{1}{10}$ (B) 2   (C) $\dfrac{10}{3}$ (D) 10   (E) 14