AIMO 2026

Annual International Mathematics Olympiad

Mathematics Association, BITS Pilani

Class 6: Question Paper

Held online on 25 October 2026 · Duration: 1 hour

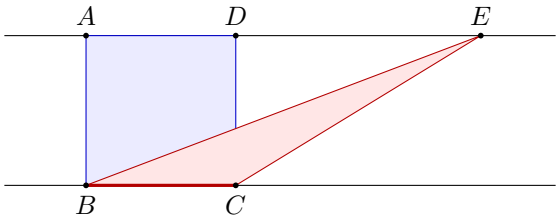
Instructions

- This paper consists of 15 multiple-choice questions. Each question has exactly one correct option.
- The questions are in mixed order of difficulty. If a question looks hard, move on and come back to it later.
- Figures may not be drawn to scale.
- Use of calculators or any electronic gadgets is strictly prohibited.

Q1. I am a two-digit prime number. My digits add up to 10. When my digits are reversed, I become a *different* prime number. I am less than 50. Who am I?

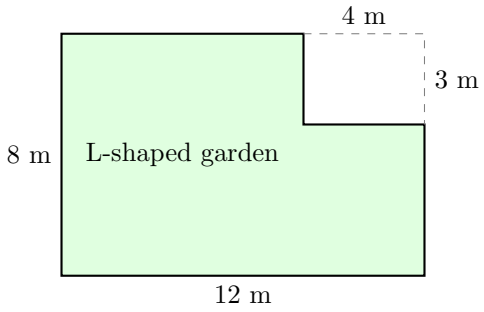
(A) 19 (B) 37 (C) 55 (D) 73

Q2. In the figure below, the two horizontal lines are parallel. $ABCD$ is a rectangle: the vertices A and D lie on the top line, and the vertices B and C lie on the bottom line. Point E is on the top line, to the right of D. The segments BE and CE are drawn to form triangle BCE (shaded red). Find the ratio of the area of triangle BCE to the area of rectangle $ABCD$.



(A) $\frac{1}{2}$ (B) $\frac{1}{3}$ (C) $\frac{1}{4}$ (D) $\frac{1}{5}$

Q3. A rectangular garden measures 12 m × 8 m. A rectangular patch of 4 m × 3 m is cut out from one **corner** of it, leaving an L-shaped garden (see the figure). A fence is put along the **whole outer boundary** of the L-shaped garden at Rs. 25 per metre, and grass is laid over the **whole L-shaped garden** at Rs. 10 per m^2. What is the total cost?



(A) Rs. 1740 (B) Rs. 1960 (C) Rs. 2100 (D) Rs. 1840

Q4. How many numbers from 1 to 100 have exactly three factors? (The factors of a number include 1 and the number itself. For example, 6 has four factors: $1, 2, 3, 6$.)

(A) 3 (B) 5 (C) 4 (D) 6

Q5. A two-digit number is added to the number formed by reversing its digits. For example, $27 + 72 = 99$, and for 40 the reversed number is $04 = 4$, so $40 + 4 = 44$. For how many two-digit numbers is the sum a perfect square? (A perfect square is a number such as $1, 4, 9, 16, 25, \ldots$ obtained by multiplying a whole number by itself.)

(A) 6 (B) 8 (C) 7 (D) 9

Q6. Ten squares, each of side 1 cm, are joined edge to edge (whole sides touching, no overlapping) to form one connected shape with no holes. The perimeter of the shape is the total length of its outer boundary. (For example, two squares joined side by side make a shape with perimeter 6 cm.) What is the difference between the largest and the smallest possible perimeters of such a shape?

(A) 6 cm (B) 8 cm (C) 10 cm (D) 12 cm

Q7. A frog starts at 0 on a number line. It jumps 7 units to the right, then 4 units to the left, then 7 to the right, then 4 to the left, and so on, alternately. On which jump does it land on 40 for the first time?

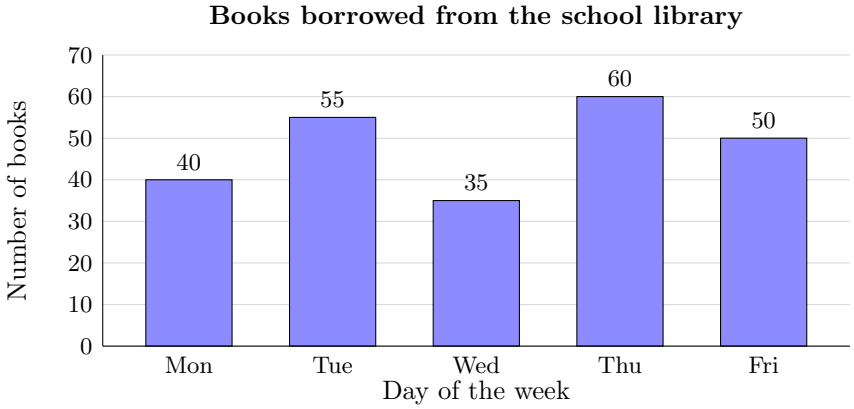
(A) 22nd (B) 28th (C) 23rd (D) 26th

Q8. Exactly one of the four statements below is true. Which one is it? (In the statements, "the answer" means the option that is the correct answer to this question.)

(A) Option A is the answer.
(B) Either option A or D is the answer.
(C) Option A is not the answer.
(D) Option C is not the answer.

Q9. The bar graph shows the number of books borrowed from a school library on five days of a week.

Day	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**
Books borrowed	40	55	35	60	50

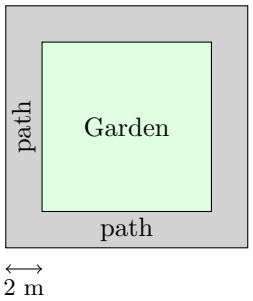


Unfortunately, the librarian forgot to record Saturday's data. She remembers two facts: Saturday's number was **smaller than the number on each of the five days shown**, and the **total for all six days was a multiple of** 25.

Based on the graph, how many books were borrowed on Saturday?

(A) 35 books (B) 10 books (C) 60 books (D) 20 books

Q10. A square garden is surrounded on all four sides by a path 2 m wide, built outside the garden (see the figure, which is not to scale). The area of the path alone is 96 m^2. What is the side of the garden?



(A) 12 m (B) 8 m (C) 14 m (D) 10 m

Q11. The word MATHEMATICS is written again and again without any gap:

MATHEMATICSMATHEMATICSMATHEMATICS...

All letters are plain capital block letters. A letter has a **vertical** line of symmetry if its left half is the mirror image of its right half (for example, the letter A has one, but the letter B does not). Among the first 50 letters, how many letters have a vertical line of symmetry?

(A) 32 (B) 35 (C) 36 (D) 37

Q12. In the multiplication below, A, B and C are digits (from 0 to 9), and the same letter always stands for the same digit. AB is a two-digit number and CAB is a three-digit number (they are *not* products of digits). Find $A + B + C$.

$$\begin{array}{cccc} & & A & B \\ \times & & & 3 \\ \hline C & A & B \end{array}$$

(A) 6 (B) 9 (C) 3 (D) 4

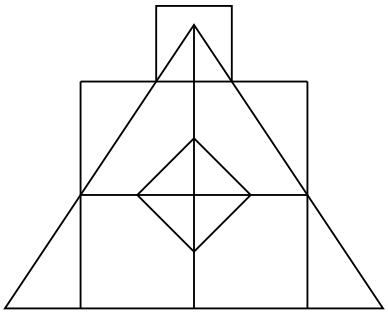
Q13. The five-digit number $7A3B6$ has the digits 7, A, 3, B, 6 in this order, where A and B are single digits. It is divisible by 8. What is the greatest such number?

(A) 79376 (B) 79336 (C) 79386 (D) 79356

Q14. What is the greatest number less than 200 that leaves remainder 5 when divided by 6, remainder 7 when divided by 8, and remainder 11 when divided by 12?

(A) 143 (B) 167 (C) 191 (D) 197

Q15. Count the triangles and the squares in the figure. Count shapes of every size, including shapes made up of smaller pieces and the tilted square. A shape counts only if all its sides are drawn in the figure.



(A) 21 triangles, 7 squares (B) 18 triangles, 8 squares
(C) 20 triangles, 8 squares (D) 22 triangles, 7 squares