

IBSMO

International British Science & Mathematics Olympiad

Mathematics — Sample Questions

Junior Level

Grade 3–4

Question 1 — Number Theory

Look at the number line below. It marks every number from 0 to 30, with multiples of 4 circled in navy and multiples of 6 circled in gold.

Circles: multiples of 4 (navy) and 6 (gold)



Which number is a multiple of BOTH 4 and 6?

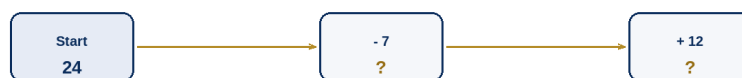
Which number is a multiple of BOTH 4 and 6?

- A) 18
- B) 20
- C) 24 ✓
- D) 30

Answer: C. 24 is the only number in the list that is both a multiple of 4 ($4 \times 6 = 24$) and a multiple of 6 ($6 \times 4 = 24$).

Question 2 — Algebra

Sam had 24 sweets. He gave 7 sweets to his sister, then bought 12 more sweets.



Sam had 24 sweets, gave away 7, then bought 12 more

How many sweets does Sam have now?

- A) 27
- B) 29 ✓
- C) 31
- D) 33

Answer: B. $24 - 7 + 12 = 29$.

Question 3 — Geometry

A rectangle has the dimensions shown in the diagram below.



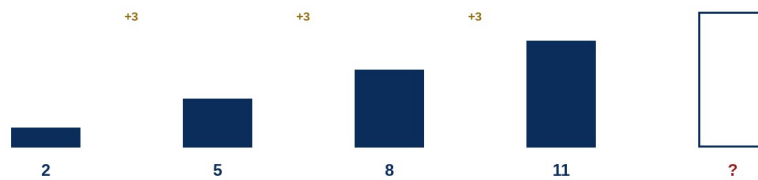
What is the perimeter of the rectangle?

- A) 20 cm
- B) 34 cm
- C) 40 cm ✓
- D) 84 cm

Answer: C. *Perimeter = $2 \times (\text{length} + \text{width}) = 2 \times (14 + 6) = 40 \text{ cm}$.*

Question 4 — Logical Thinking

Look at the sequence of numbers shown below.



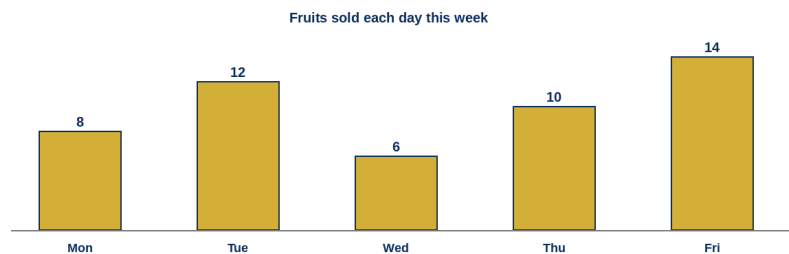
What number comes next in the pattern 2, 5, 8, 11, ___?

- A) 12
- B) 13
- C) 14 ✓
- D) 15

Answer: C. *Each number increases by 3, so the next number is $11 + 3 = 14$.*

Question 5 — Data Analysis

The bar chart below shows how many fruits a shop sold each day this week.



How many fruits were sold in total from Monday to Friday?

- A) 44
- B) 48
- C) 50 ✓

D) 54

Answer: C. $8 + 12 + 6 + 10 + 14 = 50$.