

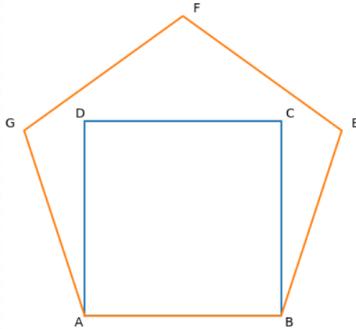


SmartCo Math Olympiad

Category 3 (Grades 7–8)

Section A: Geometry (7 Questions)

1. In the figure below, given a regular pentagon and square. Calculate the angle $\angle EBC$



A) 15°

B) 20°

C) 18°

D)

2. What is the surface area of a cube with an edge length 4 cm?

A) 64 cm^2

C) 128 cm^2

B) 96 cm^2

D) 256 cm^2

3. A mother asked her son to tidy up his toys. He tried to arrange the toys into equal groups of 3, then 4, then 5. Each time, he was short of exactly 1 toy to make one more complete group. What is the smallest possible number of toys?

A) 61

C) 59

B) 39

D) 60

4. The product of four different natural numbers is 120. What is the smallest possible sum of the four numbers?

A) 16

C) 18

B) 17

D) 14

5. In a tournament, if five teams in the same group each play against every other team once, how many games will be played in total?

- A) 8
- B) 10

- C) 12
- D) 14

6. Azat is traveling at a speed of 64 km/h. After 180 minutes, Maksat starts following him at a speed of 87 km/h. After how many hours will the distance between them be 77 km?

- A) 3
- B) 4

- C) 5
- D) 6

7. A test has 30 questions. Each correct answer gives 1 point, and each incorrect answer subtracts a quarter of a point. Aruuke answered all the questions and scored 25 points. How many incorrect answers did Aruuke give?

- A) 4
- B) 6

- C) 26
- D) 24