

“Elite Maths Challenge Cup”
International Mathematics Competition



Primary 5

Mock Paper

Time allowed: 20 minutes

Registration Number	
Name	
Score (Marker Only)	

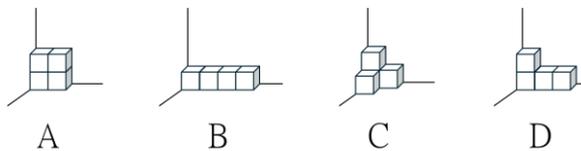
“Elite Maths Challenge Cup” International Mathematics Competition

Primary 5 – Mock Paper

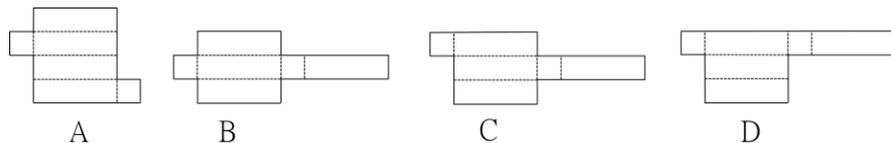
Note: There are 20 questions in total, with a full mark of 200 points.

Part A: Multiple Choices Questions (10 questions, 5 points each)

1. () Calculate : $1 \div (2 \div 3) \div (3 \div 4) \div (4 \div 5) \div \dots \div (99 \div 100)$
 A. 1 B. 10 C. 50 D. 100
2. () Define the operation " \odot " as: $a \odot b = a + 2b - 2$. Find the value of $(8 \odot 7) \odot 6$.
 A. 20 B. 30 C. 40 D. 50
3. () The area of a triangle is twice the area of a parallelogram, and their heights are equal. If the base of the parallelogram is 5, what is the base of the triangle?
 A. 12 B. 30 C. 40 D. 20
4. () The sum of three natural numbers A, B, and C is 111. The average of A and B is 31, and the average of A and C is 37. What is the average of B and C?
 A. 25 B. 37 C. 43 D. 74
5. () The following picture shows four identical small cubic cardboard boxes stacked in a corner. Which option has the smallest exposed surface area?



6. () If $\frac{a}{8}$ is an improper fraction (a is a natural number) and $\frac{a}{10}$ is a proper fraction, how many possible values are there for a?
 A. 1 B. 2 C. 8 D. 10
7. () Which of the following shapes cannot be folded along the dotted line to form a rectangular solid?



8. () Which of the following statements is correct?
 A. Multiples of 5 are always even numbers.
 B. If $a \div b = c$ (a, b, and c are all non-zero natural numbers), then a is an even number.
 C. A natural number is either even or odd.
 D. Multiples of 3 are always multiples of 9, and multiples of 9 are always multiples of 3.

* Marker Only *

Part B	Score
10 points each	

Part C: Challenging Questions (5 questions, 20 points each.)

16. A series of numbers is arranged as follows. What is the last number in the 50th row?

1 2
 3 4 5 6
 7 8 9 10 11 12
 13 14 15 16 17 18 19 20

Answer : ()

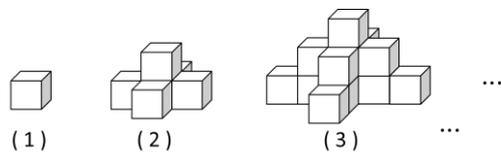
17. A new rectangular playground is being built at the school. The perimeter is 360 meters, and the length is 1.25 times the width. What is the area of this playground?

Answer : ()

18. If $a + b + c = 33$, $2a + b = 31$, and $a + b - c = 9$, then what is the value of a ? Answer : ()

19. A piece of wood was cut in two stages. The first time, half of the wood minus 0.8 meters was used. The second time, half of the remaining wood plus 1.2 meters was used. In the end, 2.7 meters of wood remained. How long was the piece of wood originally? Answer : ()

20. The following figure is made by stacking small cubes. If we continue stacking according to this pattern, how many small cubes will be used in the 11th figure? Answer : ()



* Marker Only *

Part C	Score
20 points each	

-----END OF PAPER-----