

Extremum Principle

- 1 (1分) A rectangular garden has a perimeter of 18 meters. Both the length and the width are positive integers. What is the maximum possible area of the garden, in square meters?

A. 24 B. 21 C. 20 D. 18

- 2 (1分) Let N be the greatest five-digit number whose digits have a product of 120. What is the sum of the digits of N ? (2018 AMC 8 Problem, Question #14)

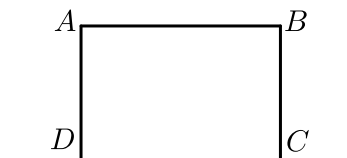
A. 15 B. 16 C. 17 D. 18 E. 20

- 3 (1分) When placing each of the digits 2, 4, 5, 6, 9 in exactly one of the boxes of this subtraction problem, what is the smallest difference that is possible? (1989 AMC 8 Problems, Question #14)

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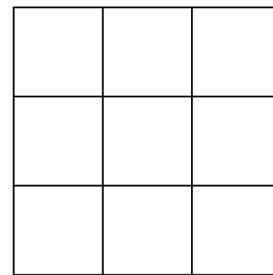
A. 58 B. 123 C. 149 D. 171 E. 176

- 4 (1分) A person plans to use 100 meters of fencing to enclose a rectangular garden outside their house. One side of the garden can be formed by the existing wall and does not require fencing. What is the maximum possible area of the garden, in square meters?



A. 1240 B. 1250 C. 1260 D. 1270

- 5 (1分) Placing no more than one X in each small square, what is the greatest number of X's that can be put on the grid shown without getting three X's in a row vertically, horizontally, or diagonally? (1988 AMC 8 Problems, Question #16)



A. 2

B. 3

C. 4

D. 5

E. 6