

# Question

Question ID: 879



9. What is the remainder when the 2008-digit number 222 ... 22 is divided by 9?
- A 8                      B 6                      C 4                      D 2                      E 0

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## Answer

9.     **D**     A number is divisible by 9 if, and only if, the sum of its digits is divisible by 9. The given number is  $N + 2$ , where  $N = 222...220$  has 2007 2s. Since  $2007 = 223 \times 9$ ,  $N$  is divisible by 9 and the required remainder is therefore 2.