

**AP<sup>®</sup> COMPUTER SCIENCE A  
GENERAL SCORING GUIDELINES**

Apply the question assessment rubric first, which always takes precedence. Penalty points can only be deducted in a part of the question that has earned credit via the question rubric. No part of a question (a, b, c) may have a negative point total. A given penalty can be assessed only once for a question, even if it occurs multiple times, or in multiple parts of that question. A maximum of 3 penalty points may be assessed per question.

**1-Point Penalty**

- (w) Extraneous code that causes side effect (e.g., printing to output, incorrect precondition check)
- (x) Local variables used but none declared
- (y) Destruction of persistent data (e.g., changing value referenced by parameter)

**Mr Lee's 1-Point Penalty:**

- Inefficient, "long winded" or "messy" difficult to understand code which takes longer to write than standard more efficient solutions.
  - In an exam you need to save time by writing quickly hand writable efficient code which is easy for AP readers to understand.

**No Penalty**

- Extraneous code with no side effect (e.g., precondition check, no-op)
- Spelling/case discrepancies where there is no ambiguity\*
- Local variable not declared provided other variables are declared in some part
- Keyword used as an identifier
- Common mathematical symbols used for operators ( $\bullet$ ,  $\div$ ,  $\leq$ ,  $\geq$ ,  $<$ ,  $>$ ,  $\neq$ )
- = instead of == and vice versa
- Missing { } where indentation clearly conveys intent
- Missing ( ) around *if* or loop conditions

*\* Spelling and case discrepancies for identifiers fall under the "No Penalty" category only if the correction can be unambiguously inferred from context; for example, "total" instead of "totl". As a counterexample, that if the code declares "int G=99, g=0; ", then uses "while (G < 10) " instead of "while ( g < 10 ) ", the context does not allow for the reader to assume the use of the lower-case variable.*

## loops – PrintNums FRQ

A code segment has two parameters: *value* and *numRounds*. The code segment will iterate for *numRounds* rounds. In each round, random integers between 0 and 9, inclusive, are generated and printed on a single line until *value* is generated. At that time, *value* is printed and the round stops. Values for the next round are printed on the next line of output.

For example, if *value* = 5 and *numRounds* = 4 call to `printNums(5, 4)` could result in the following output. Each round stops when 5 is printed for a total of four rounds.

325

7884465

06165

9678971145

Complete the code segment described below.

```
/* Iterate for numRounds rounds.  
 * Generate and print random integers between 0 and 9,  
 * inclusive, on a single line, until value.  
 * Print values for each round on separate lines.  
 */  
int value = 5, numRounds = 4;
```