

## CS 3723: Programming Languages

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You Name:

1. Which of the following is the correct definition of a type error.
  - (a) When a value is misinterpreted with unintended semantics
  - (b) When a segmentation fault or hardware error is resulted
2. A language is type safe if
  - (a) It can catch all type errors before the erroneous operation is carried out
  - (b) It can catch all type errors before the program is run
3. Which of the following languages are type safe? Which are not type-safe?
  - (a) C (b) C++ (c) Java (d) Fortran (e) Lisp/Scheme (f) ML (g) Python (h) Assembly
4. Which of the following type errors can be caught at compile time?
  - (a) array out-of-bound access
  - (b) applying string concatenation operator to integers
  - (c) dereferencing a pointer that has already been freed
  - (d) casting a base type to the wrong derived type (subtype)