

QUIZ!

Use a full sheet of 8½x11" paper. (Half sheet? Half credit!)

Put only your last name in the far upper left hand corner of the sheet, where a staple would hit it. It's OK to write **BIG**, just start in the corner!

Mitchell

AVOID A ½-POINT DEDUCTION!

Keep answers short! Avoid full sentences. Feel free to abbreviate.

Four questions; 3 minutes; 4 points + ½ point E.C.

Quiz 11, November 30, 2015

Time: 3:00; 4 points

1. **qsort(3)** can be used to sort values of any type, even instances of structures. How does **qsort** achieve such great flexibility?
2. Here's a prototype: **int f(char *) ;**
Write a declaration for a function pointer **fp** such that **fp = f** is valid.
3. Write a declaration for an **int** array named **vals** that has three rows and two columns.
4. Given **vals** from #3, what is **sizeof(vals[0])**?

EC ½ point:

Is **sizeof(vals[0]) == sizeof(vals[0,0])**? Why or why not?

Solutions

1. **qsort (3)** can be used to sort values of any type, even instances of structures. How does **qsort** achieve such great flexibility?

The caller supplies a pointer to a function that does comparisons. (**qsort** knows all about sorting but nothing about comparison.)

2. Here's a prototype: **int f(char *)**;

Write a declaration for a function pointer **fp** such that **fp = f** is valid. **int (*fp)(char *)**;

3. Write a declaration for an **int** array named **vals** that has three rows and two columns. **int vals[3][2]**;

4. Given **vals** from #3, what is **sizeof(vals[0])**? 8 (two **ints**)

EC ½ point:

Is **sizeof(vals[0]) == sizeof(vals[0,0])**? Why or why not? They are equal. **0,0** is a likely misuse of the comma operator, and produces the value zero.