CS16, 09F, UCSB

H10: (Type Expressions) Total Points: 50 ([printable PDF](#))

Accepted: on paper, **IN LECTURE** on 11/16

You may do this individually, or together with your pair programming partner—but be sure that you each hand this one in separately.

Name : (2 pts)_____ Umail address (2 pts) _____

Section (2 pts) Circle one: Thu 8am   Fri 10am   Fri 11am   Fri noon

Name of your pair programming partner(s), if you work together:

The lectures of Monday 11/09 and Friday 11/13 covered "type expressions" in C.

These are an important thing to understand, because they are the language in which messages from the compiler are written—you may be told, for example that "argument char doesn't match parameter char *", and you need to understand what that means.

Also, a mismatch in types is a common error in C/C++ programming, for example:

- mismatch of argument and parameter
- mismatch of right hand side and left hand side of an assignment statement

Together with this homework assignment, there is a program (on a separate handout).

- If you didn't get one, you can find the program at:
  http://www.cs.ucsb.edu/~pconrad/cs16/09F/homework/H10/files/types.c

Assuming each of the expressions below appeared in this program, indicate the type they would have.

The first few are done for you as an example.

Hints--for full credit:

- don't write *pointer to character*; instead, write **char ***
- don't write *address of int*; instead, write **int ***

(44 pts) (2 points each for the ones not already filled in)

Expression	Type		Expression	Type
x	int		end	
&x	int *		end.hrs	
*x	error		end->min	
c.center	struct Point		&(end->min)	
&(c.center.x)	double *		pt	
*val	double		argc	
c.x	error		&argc	
&end	struct Time **		*argc	
(*cir).x			argv[0]	
(*cir).radius			argv[0][0]	
cir->center			&num	
cir->center.y			&y	
cir->center->y			&val	
start			*num	
*end			*cir	

End of H08