This quiz has 1 questions, for a total of 10 points.

1. **10 points** Write down the C program that is generated from the following $P_1$ program by your type-specializing compiler. Write down the declarations of any non-standard C functions that you use (e.g., `pyobj add(pyobj,pyobj);`), but not the definitions. You may assume that `pyobj` has already been defined.

   ```c
   print (1 + 0.5) if (1 / 2 if True else 0.5) else 3.14159
   ```

   **Solution:**

   ```c
   char pyobj_to_bool(pyobj);
   pyobj float_to_pyobj(float);
   pyobj int_to_pyobj(int);

   #define floordiv_int(a, b) ((int)floor((double)a/ (double)b))
   #define add_float(a, b) (a + b)

   int main() {
       print_any(float_to_pyobj((pyobj_to_bool((1
   ? int_to_pyobj({ int left0 = 1; floordiv_int(left0, 2);}))
   : float_to_pyobj(0.5))))
   ? ({ int left1 = 1; add_float(left1, 0.5);})
   : 3.14159));
       printf(“\n”);
       return 0;
   }
   ```