/* Without running the code, read through the code and write the answers to the 8 questions */
/* each question asks you to analyze the code and write down what you think the program will do */
#include <stdio.h>
#include <string.h>
const int k=8;
int itsGlobal =0;

int foo1(x)
{
    int i,y;
    printf("Question 8(a) foo1: x= %d y=%d i = %d\n", x, y,i);
    x = x+20;
    y = y+30;
    i=100;
    return(y);
}

void foo2(void)
{
    int i;
    int x=10;
    static int y=20;

    printf("foo2: x= %d y=%d i = %d\n", x, y,i);
    y = y+30;
    i=500;
    return;
}

swap(int a, int b)
{
    int temp;
    temp = a;
    a= b;
    b= temp;
    return;
}

int main()
{
    int x=4;
    int itsLocal =1;
    int y,z;
    int a,b;
    const int CC = x+4;
    /* Ques.1 */
    /* what is printed by the printf below -- i.e., what values itsGlobal and itsLocal */
    printf("Question1: Global= %d Local = %d\n",itsGlobal, itsLocal);

    { int itsLocal =2;
      itsGlobal =4;
      /* Ques.2 */
      /* what is printed in the first printf below -- i.e., what are the values of itsGlobal and itsLocal */
      printf("Question2: Global= %d Local = %d\n",itsGlobal, itsLocal);
    }
    /* Ques.3 */
    /* what is printed in the printf below -- i.e., what are the values of itsGlobal and itsLocal */
    printf("Question 3: Global= %d Local = %d\n",itsGlobal, itsLocal);

    /* Ques.4 */
    /* consider the if statement below - we want to print True if x is between 2 and 7, and print false otherwise */
    /* What do you think will be the output of the program - i.e, the print statements */
if (7 > x > 2 )
    printf(" Question 4: True\n ");
else
    printf("Question 4: False\n");
/* Ques.5 */
/* what do you think will be printed out by the loop below */
for (x=4; x <4; x--){
    if (x <2) printf("Question 5: hello\n");
    else if (x==4) printf ("Question 5: bye\n");
}
/* Ques.6 */
/*what will the code below print out */
y=x++;
z = ++x;
x++;
if (y==z) printf("Question 6: True\n");
else printf("Question 6: False\n");
/* Question 7: What is the value of CC printed below */
printf("Question 7: value of CC is = %d \n", CC);
/* Ques.8(a ) */
/* what is printed (by fool) when you call fool */
y= fool(x);
/* what is printed after returning from fool */
printf(" Question 8(b) : value of x = %d, value of y= %d \n", x,y);
/* Question 9: What is printed when foo2 is called */
foo2();
/* Question 10: What is printed ( values of a,b) in the printf statement after calling function swap */
a=10;
b=20;
swap(a,b);
printf("Question 10: value of a= %d value of b = %d\n", a,b);
/* Question 11: what is printed when you call foo2 the second time */
foo2();
/* Ques.12 */
/* what happens in this while loop */
while (x >0)
    x++;
printf("Exiting program\n");
printf("x = %d \n", x);