Assignment 3

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1. What output does the following program fragment produce? (Assume that i is an integer variable.)

The fragment would produce the output:

onetwo

2. Translate each of the following program fragment into a single for statement.

(a)

for(i=1; i<= 128; i\*=2){

printf(“%d “, i);

}

(b)

for(i=9384; i>0; i/=2){

printf(“%d “, i);

}

3. For each of the program fragments in Question 2 before and after translation, what are the outputs?

1. Output (for before and after) is: 1 2 4 8 16 32 64 128
2. Output (for before and after) is:

9384 4692 2346 1173 586 293 146 73 36 18 9 4 2 1

4. What output does each of the following flowcharts produce? Write a program fragment in C for each of the flowcharts, and submit the codes online.

(a)

int n = 1

int a = 1

if (a>n && n>0)

printf(“Good!”);

else

printf(“Hello!”);

This would produce the output “Helllo!”.

(b)

for(k=1, k<11; k++){

printf(“%d “, k);

}

This would produce the output: 1 2 3 4 5 6 7 8 9 10

(c)

int k = 1

do{

printf(“%d “, k++);

}while(k<11);

This would produce the output: 1 2 3 4 5 6 7 8 9 10

(d)

double x = 10

while( x>1.001){

printf(“%d “, x)

x = sqrt(x)

}