

## COP 3223 Quiz #2 9/26/2025

Last Name: \_\_\_\_\_, First Name: \_\_\_\_\_

Circle Lab Time: 8:30 am                    9:30 am                    11:30 am                    12:30 pm

1:30 pm                    2:30 pm                    3:30 pm                    4:30 pm

1) (9 pts) Harry's Homeowner's Association charges fees to each property in the community based on the value of the property. The first \$200,000 worth of property value is not assessed a fee, the next \$300,000 worth of property value is assessed a fee of 1%, and any property value exceeding this limit is assessed a fee of 2%. (A property worth \$300,000 is levied a \$1,000 fee, and a property worth \$1,000,000 is levied a \$13,000 fee.) Complete the program below so that it prints out the fee, as a floating point number rounded to 2 decimal places, of a property in this community based on the property value entered by the user.

```
#include <stdio.h>

int main() {

    int propValue;
    printf("What is the value of your property?\n");
    scanf("%d", &propValue);

    return 0;
}
```

2) (3 pts) What is the output of the following code segment?

```
int x = 2, y = 91;
if (x = 16);
    if (y > 12)
        printf("A");
else
    printf("B");
printf("C");
```

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3) (3 pts) What is the output of the following code segment?

```
int x = 5, y = 1;
if (y > 3)
    printf("A");
if (x < 10)
    printf("B");
if (x > 2)
    printf("C");
else
    printf("D");
```

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4) (9 pts) What is the output of the following segment of code?

```
for (int i=2; i<100; i+=7) {
    if (i%10 == 0) continue;
    printf("A ");
    if (i%13 == 0) break;
    if (i%3 == 0)
        printf("%d ", i);
}
```

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5) (12 pts) Complete the program below so that it reads in a positive integer, n, from the user and prints out a star design of n rows, where the first row has n stars, the second row has 1 space followed by n-1 stars, the third row has 2 spaces followed by n-2 stars, etc. The design for n=6 is as follows:

```
*****  
****  
***  
**  
*  
  
#include <stdio.h>  
  
int main() {  
  
    int n;  
    printf("How many rows in your star design?\n");  
    scanf("%d", &n);  
  
    return 0;  
}
```

6) (12 pts) In class we saw an arithmetic game program that generated random arithmetic problems for the user and printed out how many they got correct out of 10 problems. Complete the program on the next page so that it prompts the user with addition questions where each integer being added is in between 1 and 10, inclusive, and keeps on giving the user questions until they miss their first one. When the user misses, the program should print out how many questions they solved correctly in a row before their first miss and then end. Fill in the program below. (Documentation of required C functions is included in a comment before the program.)

```
// rand() returns a random integer in between 0 and 32767 inclusive
#include <stdio.h>
#include <stdlib.h>
#include <time.h>

int main() {
    srand(time(0));
    // Your code here
    return 0;
}
```

7) (2 pts) In what month does the German celebration of Oktoberfest?

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