In your answers try to be precise, don’t write poems, just give a clear answer.

1) Write an if-statement that will print a minimum of two variables n and m, you can assume these variables were already declared. (2pt.)

**Answer:**
if (n < m) cout << n;
else cout << m;

**OR:**
int min = n;
if (m < min) min = m;
cout << min;

**Explanation:** minimum of two number is a number that is smaller than the other!

2) Evaluate the following code, what will be printed? (2pt.)

```cpp
for (int i = 1; i < 5; i = i + 2) {
    cout << “hi”;
}
```

**Answer:** hihi

**Explanation:** note that there are no spaces or commas, preserve the word also (no capital letters)
i = 1 print “hi”
i = 3 print “hi”

3) Evaluate the following code, what will be printed? (2pt.)

```cpp
int n = 3;
while (n > 0) {
    cout << “hello”;
    n--;
}
```

**Answer:** hellohellohello

**Explanation:** note that there are no spaces or commas, preserve the word also (no capital letters)
n = 3 print “hello”
n = 2 print “hello”
n = 1 print “hello”

4) Write a block of code that prints a value of a randomly selected integer in a range from 4 to 100, use rand() function! (2pt.)

**Answer:** cout << rand() % 97 + 4;

* refer to the slide about rand() function for explanations

5) Write an appropriate condition for the ‘if statement’ (use ‘and’/’or’ operators where it is applicable) (1pt. each)

a) m is positive and not divisible by 5  
   \( (m > 0 && m \% 5 != 0) \) note that 0 in not positive nor negative

b) last digit of m is not 4  
   \( (m \% 10 != 4) \)

c) m is greater than 7 and is even  
   \( (m > 7 && m \% 2 == 0) \)

d) m is a negative 2digit number  
   \( (m < -9 && m > -100) \) OR \( (m <= -10 && m >= -99) \)
6) Calculate \( x \) as the decimal that represents the fraction \( \frac{2}{9} \) (1pt.)

**Answer:**

```
cout << (double) 2/9;
OR
cout << 2.0 / 9;
OR
cout << 2 / 9.0;
```

**Explanation:** you can either cast the calculation (put (double) in front of it) or present one of both of the numbers as floating point number.

7) Print the sum of the square roots of 7 and 12. (use appropriate function) (1pt.)

**Answer:**

```
cout << sqrt(7) + sqrt(12);
```