CMPS-2020 Exam-1 Monday name _____

- Write clear and complete programming statements.
- Write only the programming statements asked for.
- Do not write complete programs.

1. Which of these loop types will always execute at least one iteration?

   A. do-while loop
   B. while loop
   C. for loop

2. Write a for-loop that will fill the following array with even numbers that are all different.

   int arr[200];

3. For the following array...

   double vals[25];

   Declare a pointer variable that will hold the address of the array's third data element. (The first element is at index 0.) Declare the variable, then set its value using initialization or assignment.

4. Use the pointer declared in question #3 to print the array's 3rd data value to the screen, using a cout statement. Do not use the [] operator.

5. Declare an array that would hold the following text as a C-string? Just show the array declaration.

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6. A boolean expression always evaluates to TRUE or FALSE.
   Here is an example of some boolean expressions:
      (a == 0)
      (a > 10)
      (a == b)

   Write a boolean expression that will always be true.
   Write only the boolean expression. Nothing else.

7. Write a compound boolean expression that will evaluate to TRUE if
   a variable named num is greater than 4, but not greater than 24.

8. How many integers can the following 2-dimensional array store?

   ```
   int arr[7][3];
   ```

9. The array above in question #8 will reside in one block of contiguous memory.
   Its first element can be accessed with the expression arr[0][0].

   Write a program statement that will store the number 73 in the array's
   last element.

10. Write a conditional statement that performs the following logic:
    If the variable x is equal to 20, then assign 0 to the variable y.

extra

11. What is the output of the following statement?

   ```
   cout << 40 % 2;
   ```