| Question No. 01 |
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| Write a function to find the area of a rectangle given its length and width. |
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| Question No. 02 |
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| Write a function that will take an array and find its maximum. |
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| Question No. 03 |
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| Write a function which will right rotate an array by k. For example, array a has the values {1, 2, 3, 4, 5}. If we call Rotate(a). Array a will have the values {2, 3, 4, 5, 1} |
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| Question No. 04 |
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| Write a function which will right rotate an array by k. For example, array a has the values {1, 2, 3, 4, 5}. If we call RotateByK(a, 3). Array a will have the values {4, 5, 1, 2, 3}. You can use the previous function. |
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| Question No. 05 |
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| Suppose, you call Rotate ByK(a, 1000000000). You will find that your program takes a lot of time. How can you optimize your program?  Hint: What happens when you rotate by the array length? |
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| Question No. 06 |
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| Write a function truncate() that takes a string and an integer k, and keeps only the first k characters. For example - if s is “abcd”, truncate(s, 2) will make s = “ab” |
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| Question No. 07 |
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| Declare three pointers a, b, c. a points to an int, b to an double, c to a char. Find out the values of the following expressions?   1. a+1 2. a-2 3. b+3 4. b-4 5. c-5 6. c+6 7. a-b |
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| Question No. 08 |
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| In the following code, complete the box such that it prints “20 40”.  const int a = 20;  printf(“%d “, a);  \\\Write code here.  printf(“%d “, a); |
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| Question No. 09 |
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| Asma wrote the following function to make an integer positive.  void makePositive(int a) {  if (a < 0) {  a = -a;  }  }  Will it work? If not, how can she fix it? |
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| Question No. 10 |
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| Write a C function that takes an integer and reverses its digits. The function should have the signature void reverse(int\* ). |
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| Question No. 11 |
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| The function sort(int \*a, int \*b) sorts the variables a, b by their value. If a is smaller, the function does nothing, otherwise it swaps them. Implement the function. |
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| Question No. 12 |
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| Use the above function to sort three integers a, b, c by their value. After sorting a should have the smallest value, b should have the second smallest, c the largest value. Hint: It should take three function calls. |
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| Question No. 13 |
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| Write a function that outputs the element wise sum of two equal sized array. It should have the signature void add(int a[], int b[], int sum[]). Use the sum variable for outputting the sum.  Example: a = {1, 2, 3}, b = {2, 3, 4}. Then sum should be {3, 5, 7} |
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| Question No. 14 |
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| Write a function that as input n and outputs an a |
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| Question No. 15 |
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| Write a function that takes no input and prints the number of times the function has been called. Hint: Use static variables.    Example: printCall(); printCall(); printCall(); will print  “Called 1 times”  “Called 2 times”  “Called 3 times” |
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| Question No. 16 |
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| Suppose you have a global variable number. Write three functions -  set (int v) -> updates number to v.  makedouble() -> doubles number.  print() -> prints the current value of number.    Example:  set(10); //v is now 10  set(5); //v is now 5  print(); //prints 5  makedouble(); //v is now 10  makedouble(); //v is now 20  print(); //prints 20 |
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