int[] myArray = { 45, 13, 47, 28, 33 };

**1. Provide a fragment of java code to add 10 to each element in the array**

for(int i = 0; i < myArray.length; i++){

myArray[i] = myArray[i] + 10;

}

System.out.println("The new array is... " + Arrays.toString(myArray));

**2. Provide a fragment of java code to find and print the biggest value in the array**

int biggest = myArray[0];

for (int i = 1; i < myArray.length; i++){

if (myArray[i] > biggest) biggest = myArray[i];

}

System.out.println("The biggest number in the array is... " + biggest);

**3. Describe the steps necessary to add a new element into the list, Where the element has already been determined to be smaller than the value pointed at by the head ie the new element will be inserted at the front of the list (DON'T PROVIDE JAVA CODE)**

[HEAD] -> [10] -> [12] -> [19] -> [24]

ANSWER:

1. Create a new element and initialise the data field to the new value

2. Set the 'next' field of the new element equal to the value of the 'head'

3. Update 'head' to point to the new element

4. Describe the steps necessary to test for the presence or absence of a given value in the list ie the method contains(int x) which returns 'true' if the value 'x' is present in the list 'false' otherwise (DON'T PROVIDE JAVA CODE)

[HEAD] -> [10] -> [12] -> [19] -> [24]

ANSWER:

/\*

Initialise 'pointer' to the value of 'head'

while pointer is not null and value at the pointer is less than the value searched

move pointer to the next element in the chain

end while

if the pointer is null return false

else if value at pointer is the value searched

return true

else return false

end if

end if

\*/

**6. What is the effect of this method? Can you suggest a more descriptive name for the method?**

/\*

public static void something(int x, int y){

System.out.println(x);

if(x < y) {

something(x + 1, y);

}

}

\*/

ANSWER : printRange(int from, int to)

**7. What is meant by the 'Base Case' in Recursive Method? What is the base case in this instance?**

/\*

public static void something(int x, int y){

System.out.println(x);

if(x < y) {

something(x + 1, y);

}

\*/

ANSWER : The Base Case is the case used so that the method is able to stop

As you can see below the method will stop as soon as x <= y

ANSWER : x is no longer less than y meaning (x <= y)

**8. Provide the precise output from the main() method space below**

public static void testArray(char[] myLetter){

myLetter[2] = 'U';

myLetter[3] = 'T';

myLetter[4] = 'Q';

}

public static void main(String[] args){

char[] temp = {'X', 'P', 'A', 'N', 'D'}

}

System.out.println("START: \t");

System.out.println(temp[1] + "\*" + temp[2] + "\*" + temp[3]);

testArray(temp);

System.out.println("END: \t");

System.out.println(temp[1] + "\*" + temp[2] + "\*" + temp[3]);

ANSWER:

START: P\*A\*N

END: P\*U\*T















