STEP 1: Static variable max_ref is declared at class level, Instantiate the main class and an array of type int is created and instantiated.

STEP 2: The length of the declared array is stored in an int variable.

STEP 3: Static method int lis is called and the array and the length of it is passed and the variable max_ref is instantiated to 1

STEP 4: The call to another static method _lis is done and the array elements and the length of it is passed to as parameters

STEP 5: An if statement is used to check the value of n and returns 1 if it is equal to 1

STEP 6: Local variables res and max_ending _here of type int is instantiated to 1

STEP 7: A for loop is declared with int i and variable res is assigned to the current element position in the array list

STEP 8: An if statement is used if the element being passed is less than the total number of elements in the array

STEP 9: If True the value of max_ending_here is incremented with the value of res

Step 10: The value of max_ending_here is assigned to max_ref and returns the value of max_ending_here.

STEP 11: The value of max_ref is returned in the lis method

STEP 12: The value of max_ending_here is printed in the main metho