1. What would be printed out by the following code, if the vector *a* contained {4, -1, 7, 6, 1} and the function *printVec* printed out contents of *a*? (Don't worry about the exact format of the output, the point is to show how the contents of the vector is or is not changing)

// Simple insertion sort.

template void insertionSort (vector<int> & a ){

int j;

for( int p = 1; p < a.size( ); p++ ){

printVec(a);

Comparable tmp = a[ p ];

for( j = p; j > 0 && tmp < a[ j - 1 ]; j-- )

a[ j ] = a[ j - 1 ];

}

a[ j ] = tmp;

}

}

**Answer: -1 1 4 6 7**

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template <class Comparable>

void mergeSort( vector<Comparable> & a, vector<Comparable> & tmpArray, int left, int right){

if( left < right ){

int center = ( left + right ) / 2;

mergeSort( a, tmpArray, left, center );

mergeSort( a, tmpArray, center + 1, right );

merge( a, tmpArray, left, center + 1, right );

printVec(a);

}

}

**Answer:**