Question 1-b)

I am assuming array to be ﻿A = [3, 2, 5, 1, 6, 8].

Successive calls in the merge sort algorithm for this array will be:

|mergesort([3, 2, 5, 1, 6, 8].)

| |m\_rec[3, 2, 5, 1, 6, 8], 0, 2)

| | |m\_rec[3, 2, 5, 1, 6, 8], 0, 1)

| | | |m\_rec[3, 2, 5, 1, 6, 8], 0, 0)

| | | |m\_rec[3, 2, 5, 1, 6, 8], 1, 1)

| | | |merge( [3, 2, 5, 1, 6, 8], 0, 0, 1)

| | |m\_rec[2.0, 3.0, 5, 1, 6, 8], 2, 2)

| | |merge( [2.0, 3.0, 5, 1, 6, 8], 0, 1, 2)

| |m\_rec[2.0, 3.0, 5.0, 1, 6, 8], 3, 5)

| | |m\_rec[2.0, 3.0, 5.0, 1, 6, 8], 3, 4)

| | | |m\_rec[2.0, 3.0, 5.0, 1, 6, 8], 3, 3)

| | | |m\_rec[2.0, 3.0, 5.0, 1, 6, 8], 4, 4)

| | | |merge( [2.0, 3.0, 5.0, 1, 6, 8], 3, 3, 4)

| | |m\_rec[2.0, 3.0, 5.0, 1.0, 6.0, 8], 5, 5)

| | |merge( [2.0, 3.0, 5.0, 1.0, 6.0, 8], 3, 4, 5)

| |merge( [2.0, 3.0, 5.0, 1.0, 6.0, 8.0], 0, 2, 5)