# Java Week One

a)

**protected** **void** randomise()

{

//start timer

setUp();

//create an int array and fill it

**int**[] copy = getArray();

//create int j

**int** j;

/\*

\* this for loop will swap position i and a random position

\* \*/

//for every int in copy

**for**(**int** i : copy)

{

//store a random int in the array

**int** randomPos = getRandomIndex();

//make j equal pos i

j = copy[i];

//make position i of the array equal the one from a random pos

copy[i] = copy[randomPos];

//make a randompos in the array equal the the one in pos i

copy[randomPos] = j;

}

//set the array to equal the new randomised copy

**for** (**int** index = 0; index < getArray().length; index ++)

{

getArray()[index] = copy[index];

}

//end timer

tearDown();

}

b)

//get time at the start

**protected** **void** setUp()

{

*testStart* = System.*nanoTime*();

}

//get time at the end

**protected** **void** tearDown()

{

*testEnd* = System.*nanoTime*();

}

//return the the time in microseconds

**protected** String printTime()

{

String time = "\n" + "Test " + "took " + (*testEnd*-*testStart*)/1000 + " microseconds";

**return** time;

}