

```

class SomeClass implements Runnable
{
    public int sumArrays(ArrayWithLockOrder a1,
                        ArrayWithLockOrder a2)
    {
        int value = 0;
        ArrayWithLockOrder first = a1; //Keep a local copy of array
        ArrayWithLockOrder last = a2;  //references.
        int size = a1.array().length;
        if (size == a2.array().length)
        {
            if (a1.lockOrder() > a2.lockOrder()) //Determine and set the
            {                                     //lock order of the
                first = a2;                       //objects.
                last = a1;
            }
            synchronized(first) { //Lock the objects in correct order.
                synchronized(last) {
                    int[] arr1 = a1.array();
                    int[] arr2 = a2.array();
                    for (int i=0; i<size; i++)
                        value += arr1[i] + arr2[i];
                }
            }
        }
        return value;
    }
    public void run() {
        //...
    }
}

```

The `ArrayWithLockOrder` class is provided as a wrapper to the arrays used in the first example. This class increments the static `num_locks` variable each time a new object of the class is created. A separate `lock_order` instance variable is set to the current value of the `num_locks` static variable. This ensures that each object of this class has a unique value for the `lock_order` variable. The `lock_order` instance variable serves as the indicator for the order that this object should be locked in relation to other objects of this class.

Note that the manipulation of the static `num_locks` variable is done from within a synchronized statement. This is required because each instance of an object shares its static variables. Therefore, if two threads create an object of the `ArrayWithLockOrder` class concurrently, the static `num_locks` variable could be corrupted if the code manipulating it is not synchronized. Synchronizing this code ensures that each object of the `ArrayWithLockOrder` class has a unique value for its `lock_order` variable.