Problem 1)

The code is checking every possible pair of numbers in the array (two numbers at a time, multiply them, and keep track of the biggest product).   
First loop index is iterate1 that goes from start to second to last.

Second loop index is iterate2 that goes from all the values after iterate1.

That means the array with a sz of n, will do n + (n-1) + (n-2) + … + 1 multiplications, which is roughly a O(n^2), and it only stores largest, product so space use is a constant O(1).

Problem 2)

So, we want to figure out which bag has an extra .1g so let’s start with labeling the bags 1-20 to identify them. And take out 1 candy from bag 1, 2 from bag 2, and so on all the to 20 candies from bag 20. So that you have a total of 210 candies on the scale. Then (whatever value comes out on the scale – 210) x 10 will give you the bag because each candy in that bag has an extra 0.1 g in it.

1. Label the bags 1-20
2. Take 1 candy from bag 1, 2 from bag 2, up to 20 from bag 20. In total, you’ll place 210 candies on the scale.
3. Weigh once. If all candies were 1.0g, the total would be exactly 210g
4. Calculate:
   1. Bag Number = ( W – 210) x 10
   2. Where W is the actual scale reading