Hands On 3

1. $\sum_{i=1}^{n} \sum_{j=1}^{n} 1 = n \cdot n = n^2$ $\therefore$ Runtime is $O(n^2)$

2. Given on Github

3. $O(n^2)$ Upper Bound

   $\Omega(n^2)$ Lower Bound

   $\Theta(n^2)$ Tight Bound

4. $n0 = 50$ since then onwards, that's where curve starts mostly closely resembling $O(n^2)$ curve.

4. Increases but barely. Runtime time complexity is still same as $\Theta(n^2)$.

5. No it does not. As said, time complexity remains same.

6. Given on Github