

Practical 2

Exercise 1:

$$\begin{array}{r} 68 \times 139 \\ \hline 68 \quad 139 \\ 34 \quad 278 \\ 17 \quad 556 \leftarrow \\ 8 \quad 1112 \\ 4 \quad 2224 \\ 2 \quad 4448 \\ 1 \quad +8896 \leftarrow \\ \hline \underline{9452} \end{array}$$

Exercise 2:



I think the time complexity of the Russian peasant algorithm is $O(\log n)$. To get this I looked at the while statement and figured that its complexity is $O(n)$. Inside the while statement we multiply a by 2 and we divide b by 2. This comes out to $O(\log n)$.