Situation 1

Size of input array	MaxPairwiseProduct1withNumSteps	MaxPairwiseProduct2withNumSteps
3	24	19
10	181	63
50	3889	306
100	15266	606
200	60519	1208
500	376272	3010
1000	1502529	6012

MaxPairwiseProduct1withNumSteps is quadratic because it has an exponent $f(n) = an^2 + bn + c$ and MaxPairwiseProduct1withNumSteps is linear because it is $f(n) = an + b$.

Situation 2

Input string	removeMystery1withNumSteps	removeMystery2withNumSteps
"abcdef"	174	20
"abcdefghijklmnopqrstuvwxyz"	2290	80
"abcdefghijklmnopqrstuvwxyzabcdefghijklmnopqrstuvwxyz"	8631	158

removeMystery1withNumSteps is quadratic because it has an exponet $f(n) = 3n^2/2$ and removeMystery2withNumSteps is linear because it is $f(n) = 6n$.