As the input to an algorithm increases, the time required to run the algorithm may also increase.

Nested loops

For I in range

For j in range

Will increases the lines dramatically

The rate of increase of an algorithm is also referred to as the **order** of the algorithm

For example, instead of saying "this relationship has a linear rate of increase", we could instead say, "the order of this relationship is linear".

 O Notation, and you'll see that the "O" in the name refers to the **o**rder of the rate of increase.

03.