## **So when you're dealing with this kind of notation, there are three Greek letters that you'll consistently**

## **see.**

## 

## **They are omega, theta and Omicron.**

## 

## **Omicron is better known as O, as in big O, and big O is the one, of course, that you're going to**

## **see most often.**

## 

## **So to explain this, I'm just going to bring up an array.**

## 

## **Let's say we're going to build a for loop to iterate through this array until we find a particular number.**

## 

## **If we're looking for the number one, this is our best case with the least number of iterations through**

## **the array.**

## 

## **This would be our worst case and four would be our average case.**

## 

## **So this best case is represented with the Greek letter omega.**

## 

## **This average case is represented with the Greek letter theta, and our worst case is represented with**

## 

## **Omicron or O.**

## 

## **So big O is always going to be worst case.**

## 

## **And I want to point this out because it is very common for people to say things like, okay, that's**

## 

## **your worst case, big O, but what's your best case or average case, big O.**

## 

## **Well, technically there is no best case or average case.**

## 

## **Big O.**

## 

## **That would be omega or theta.**

## 

## **So when we measure big O, we are always measuring worst case.**

## 

## 