

What Is A P-value Anyway?

The definition of a p-value is **the probability of observing your statistic (or one more extreme in favor of the alternative) if the null hypothesis is true.**

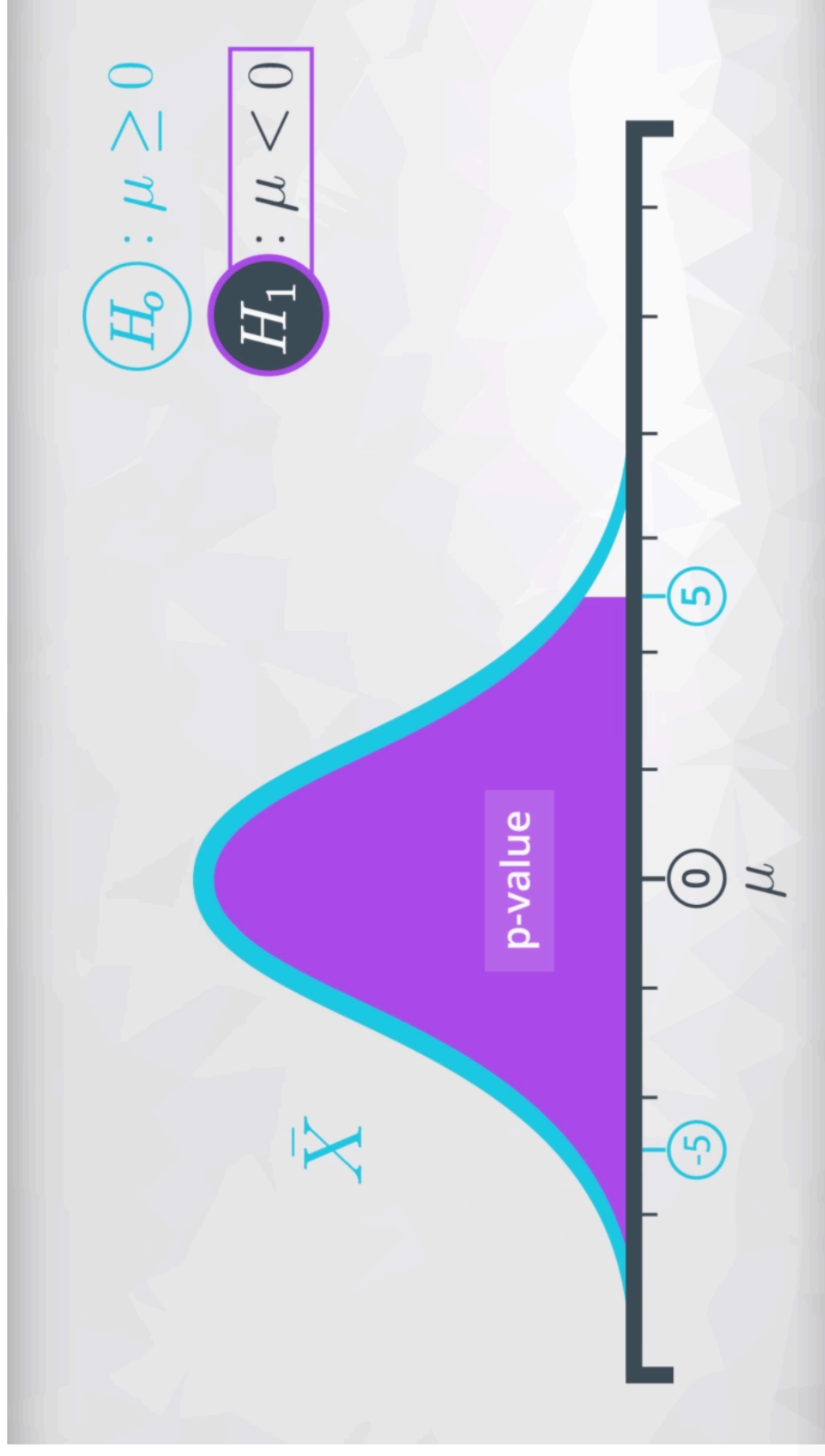
In this video, you learned exactly how to calculate this value. The **more extreme in favor of the alternative** portion of this statement determines the shading associated with your p-value.

Therefore, you have the following cases:

If your parameter is greater than some value in the alternative hypothesis, your shading would look like this to obtain your p-value:



If your parameter is less than some value in the alternative hypothesis, your shading would look like this to obtain your p-value:



If your parameter is not equal to some value in the alternative hypothesis, your shading would look like this to obtain your p-value:

