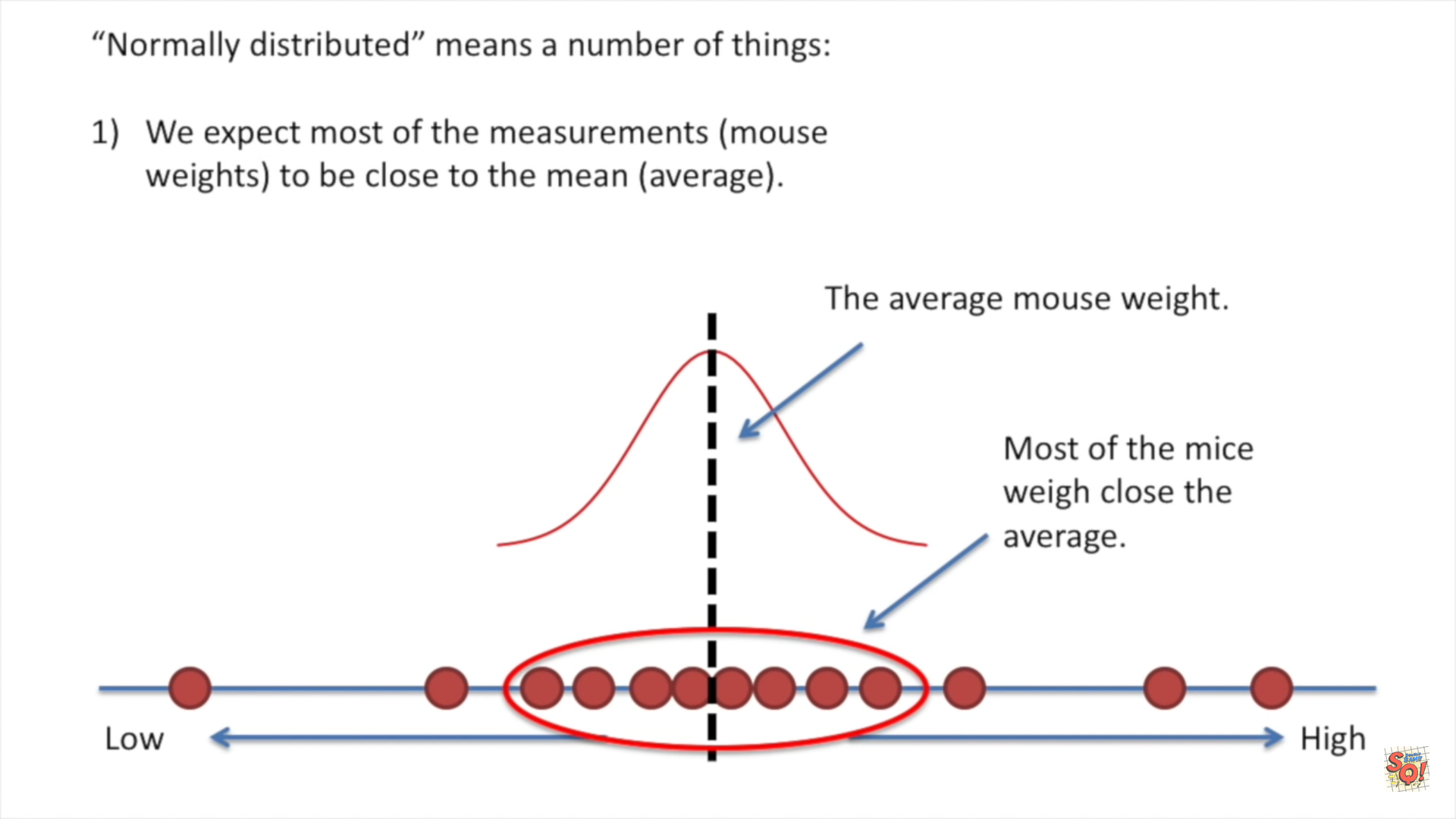
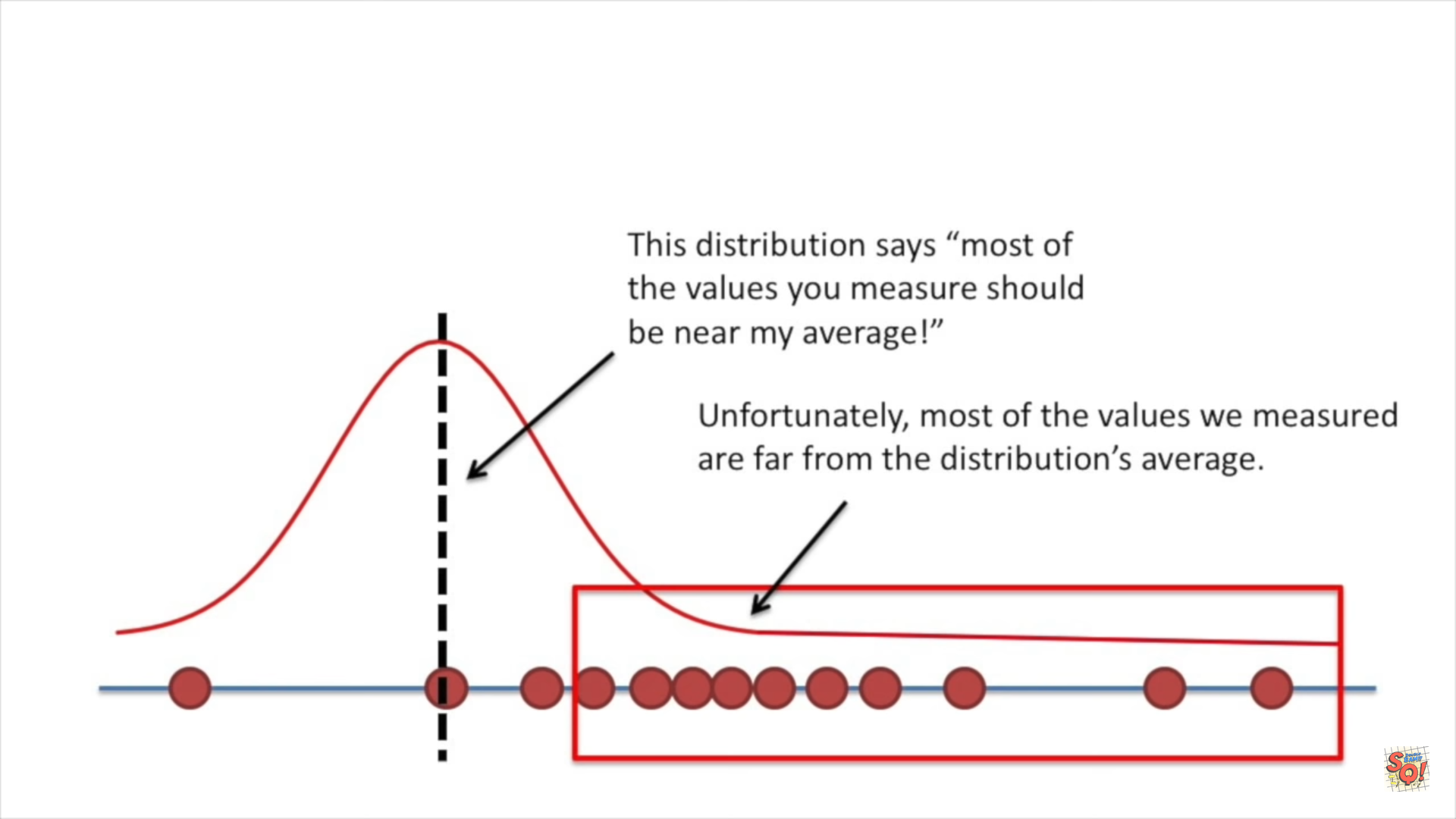
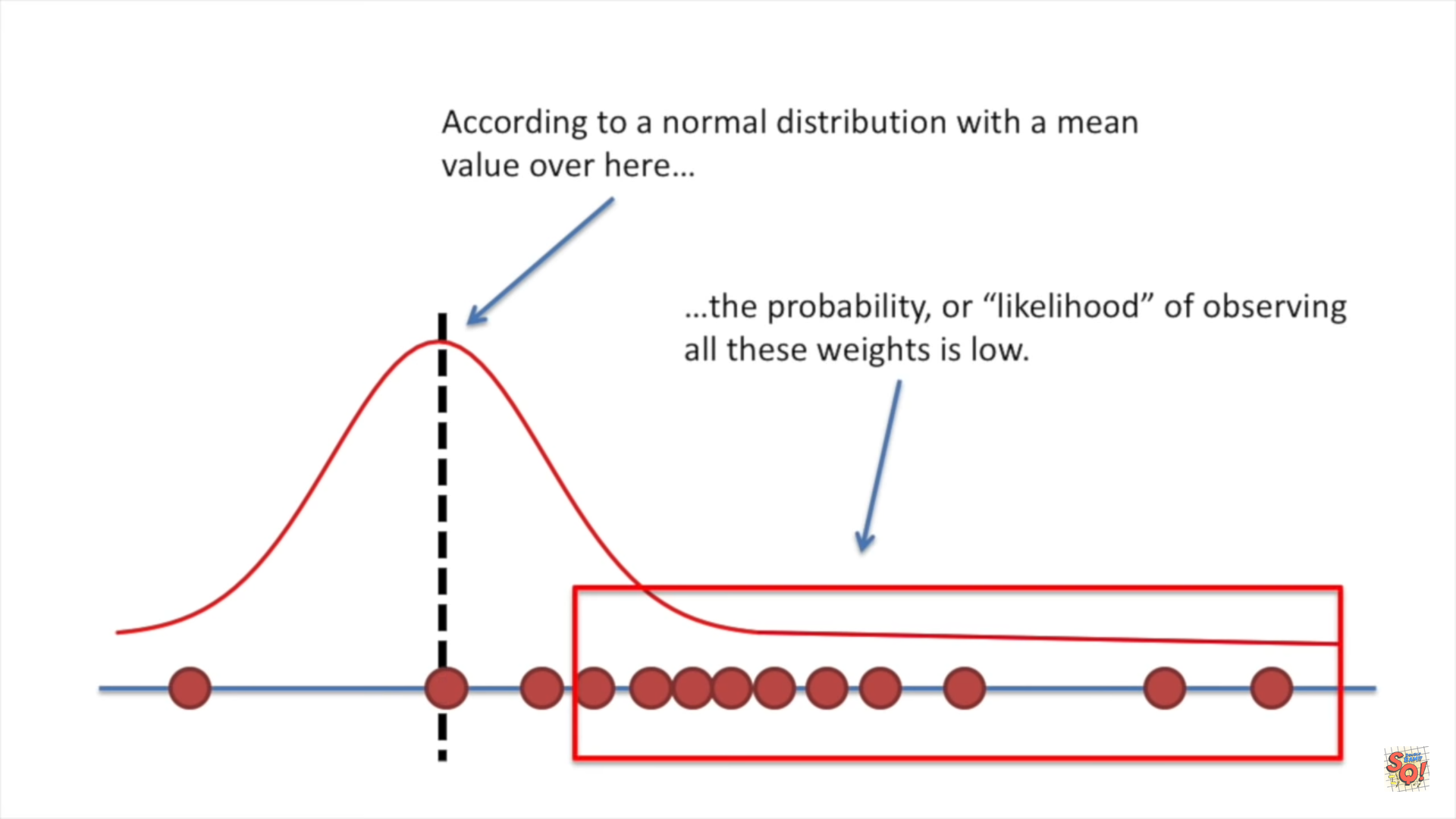
**Normal Distribution**





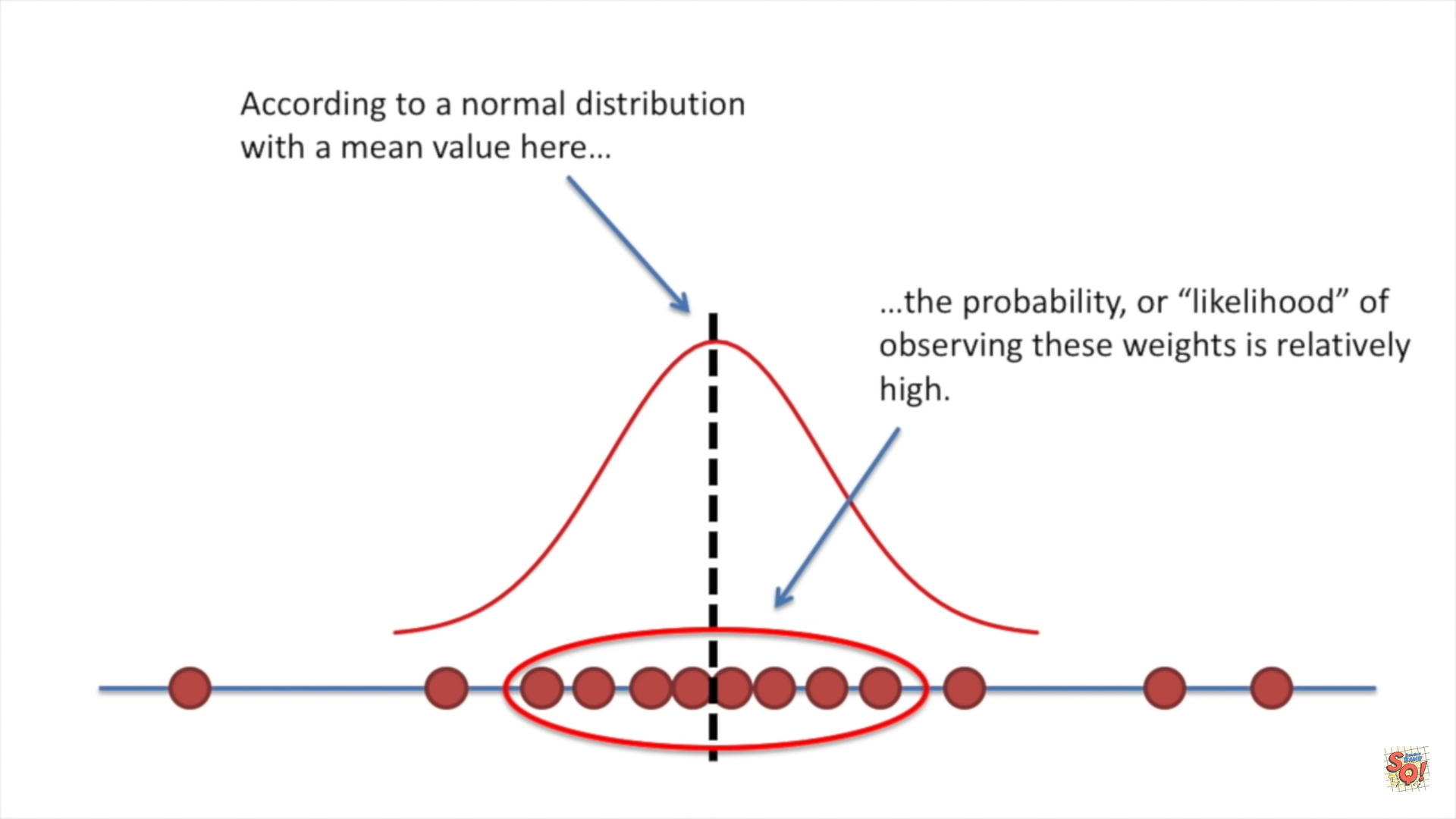
**Case-1**





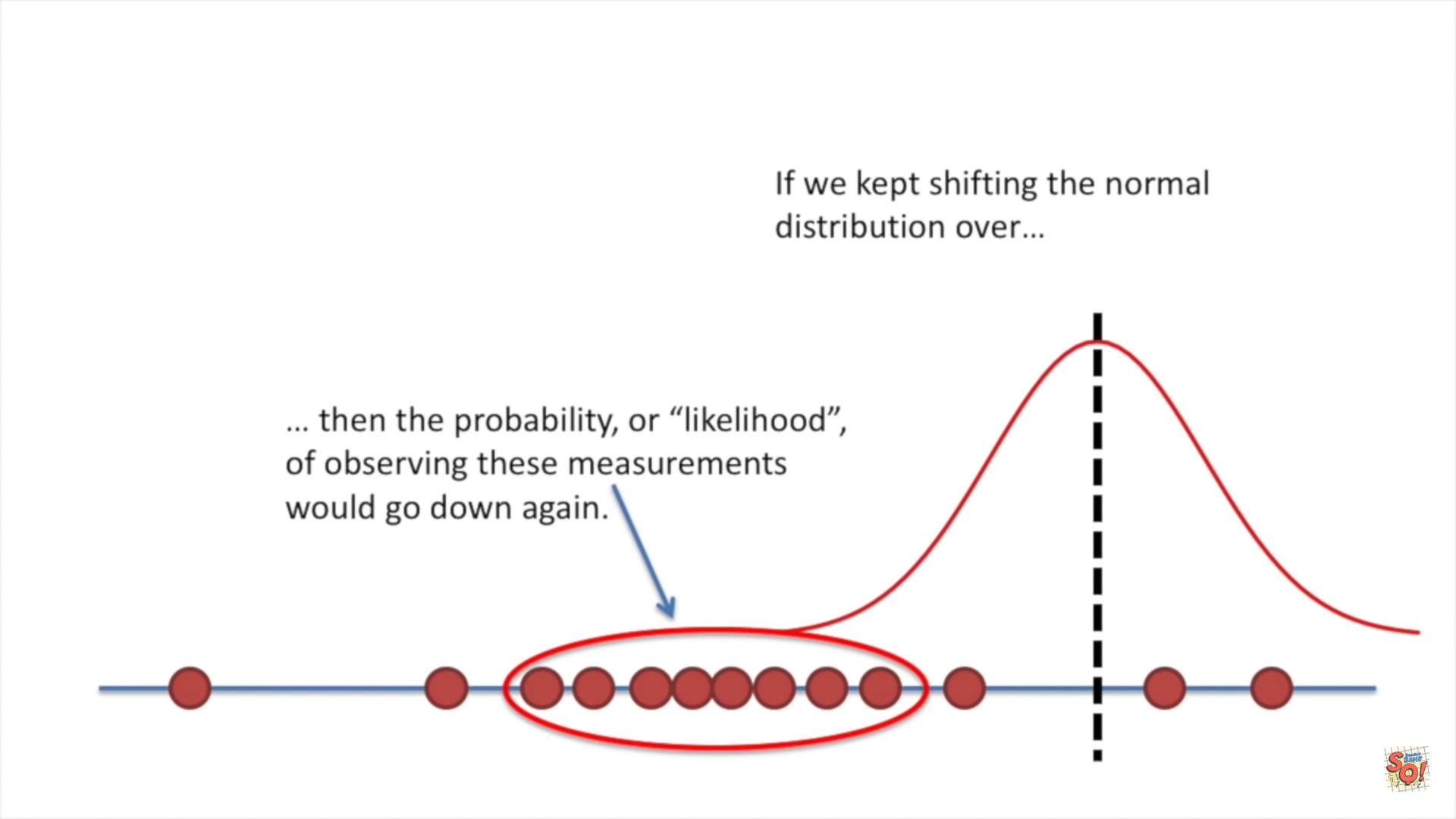


**Case-2**

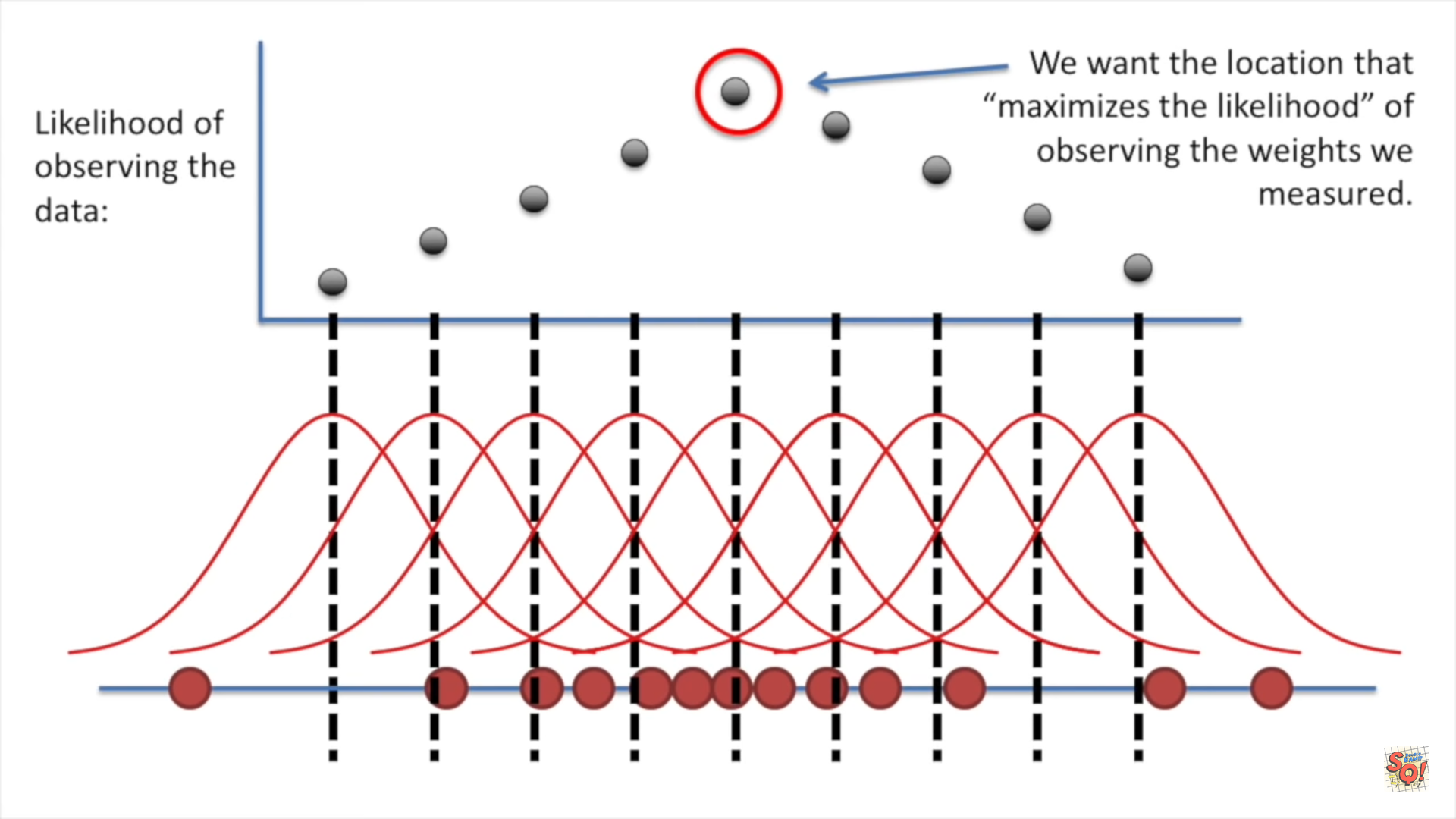


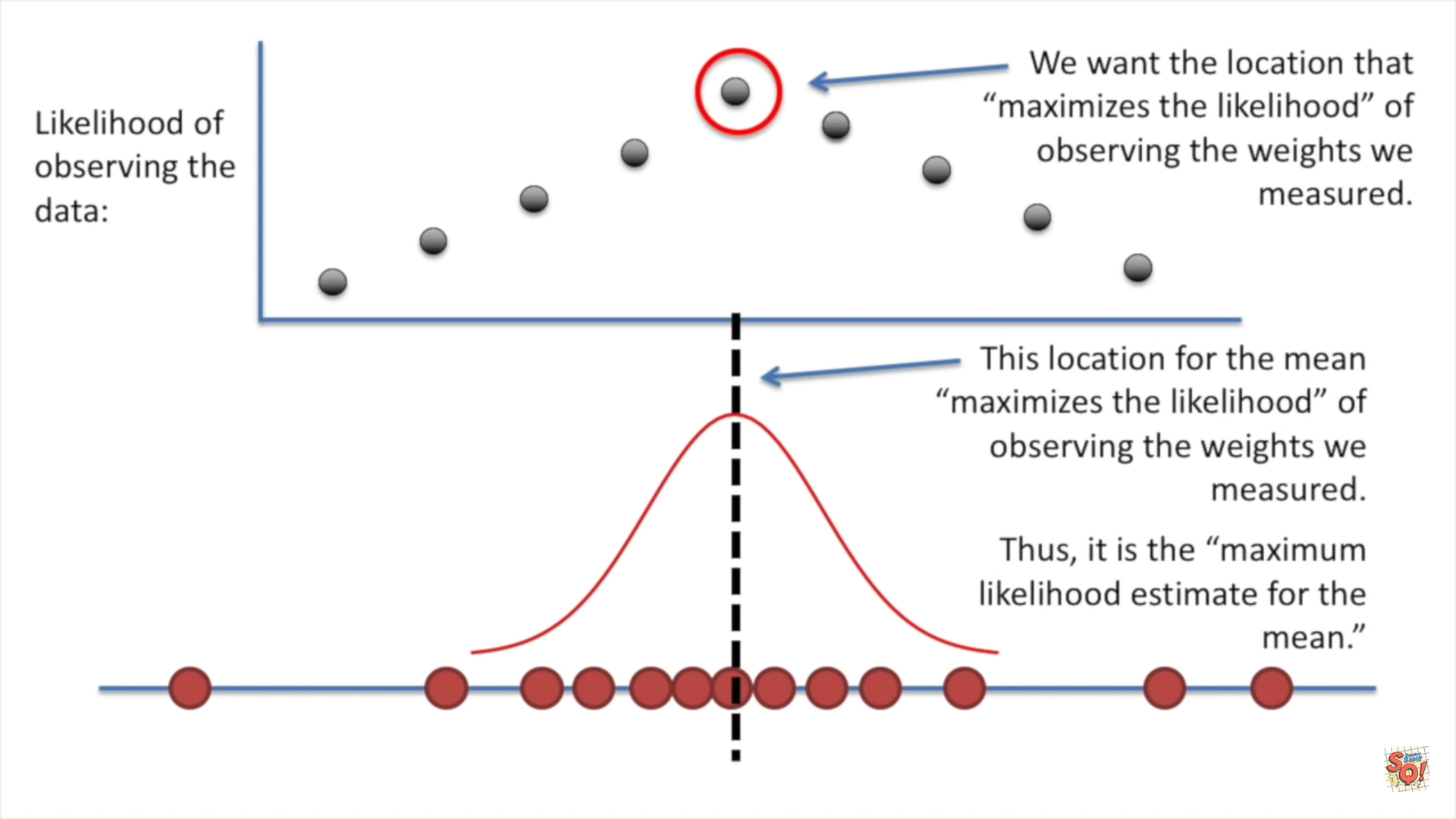


**Case-3**

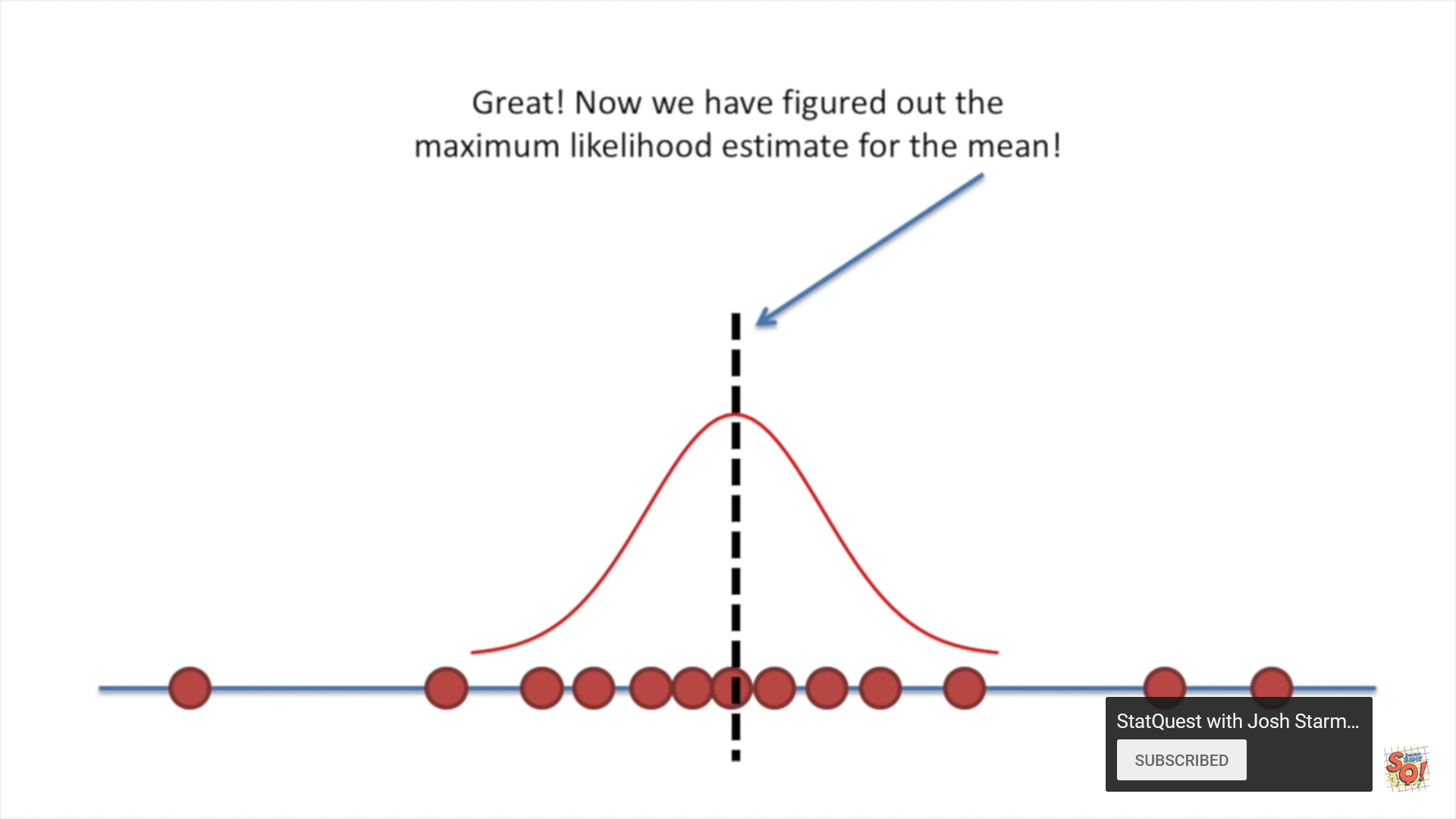






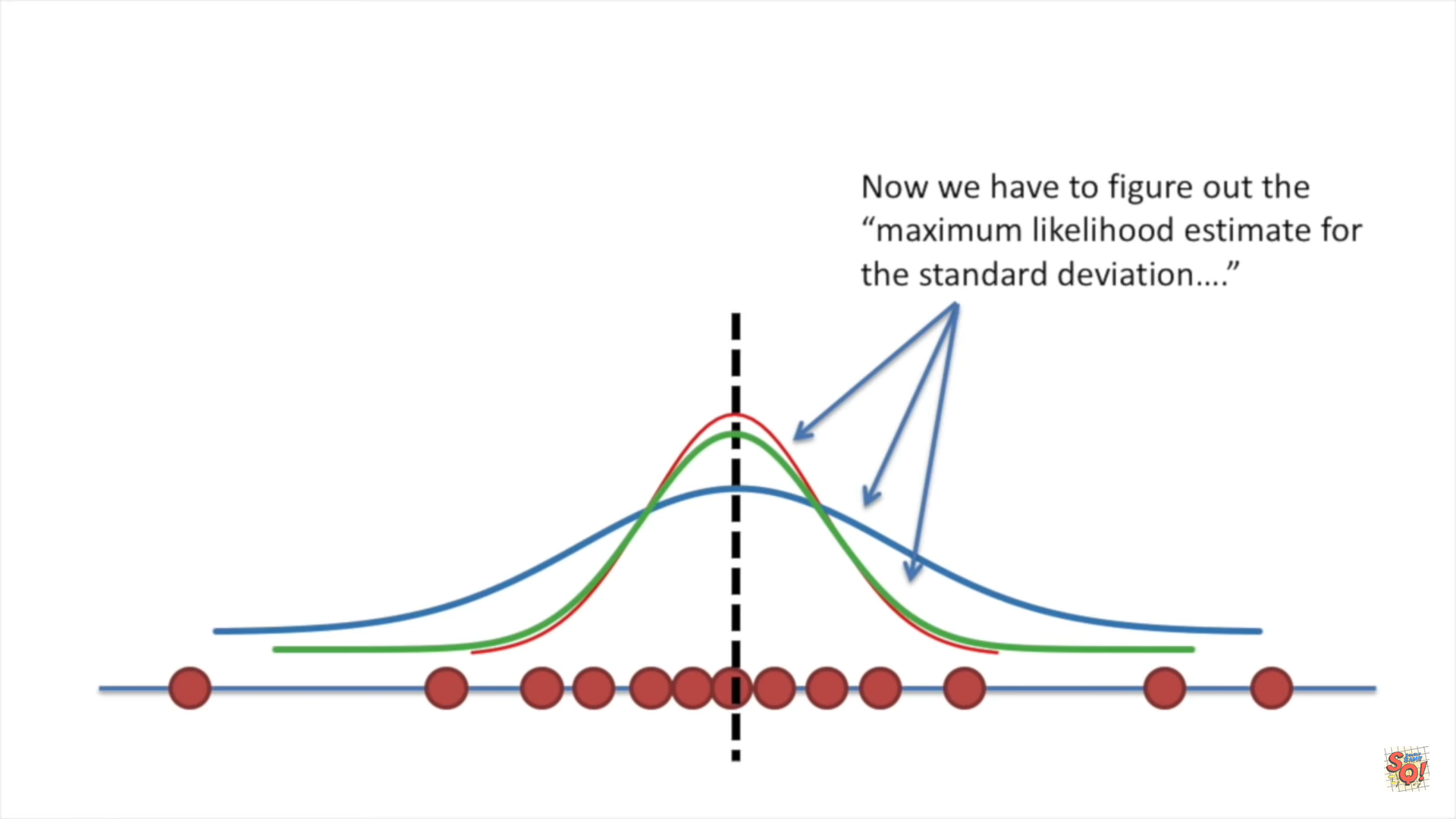


Maximum Likelihood function estimate for the **mean**

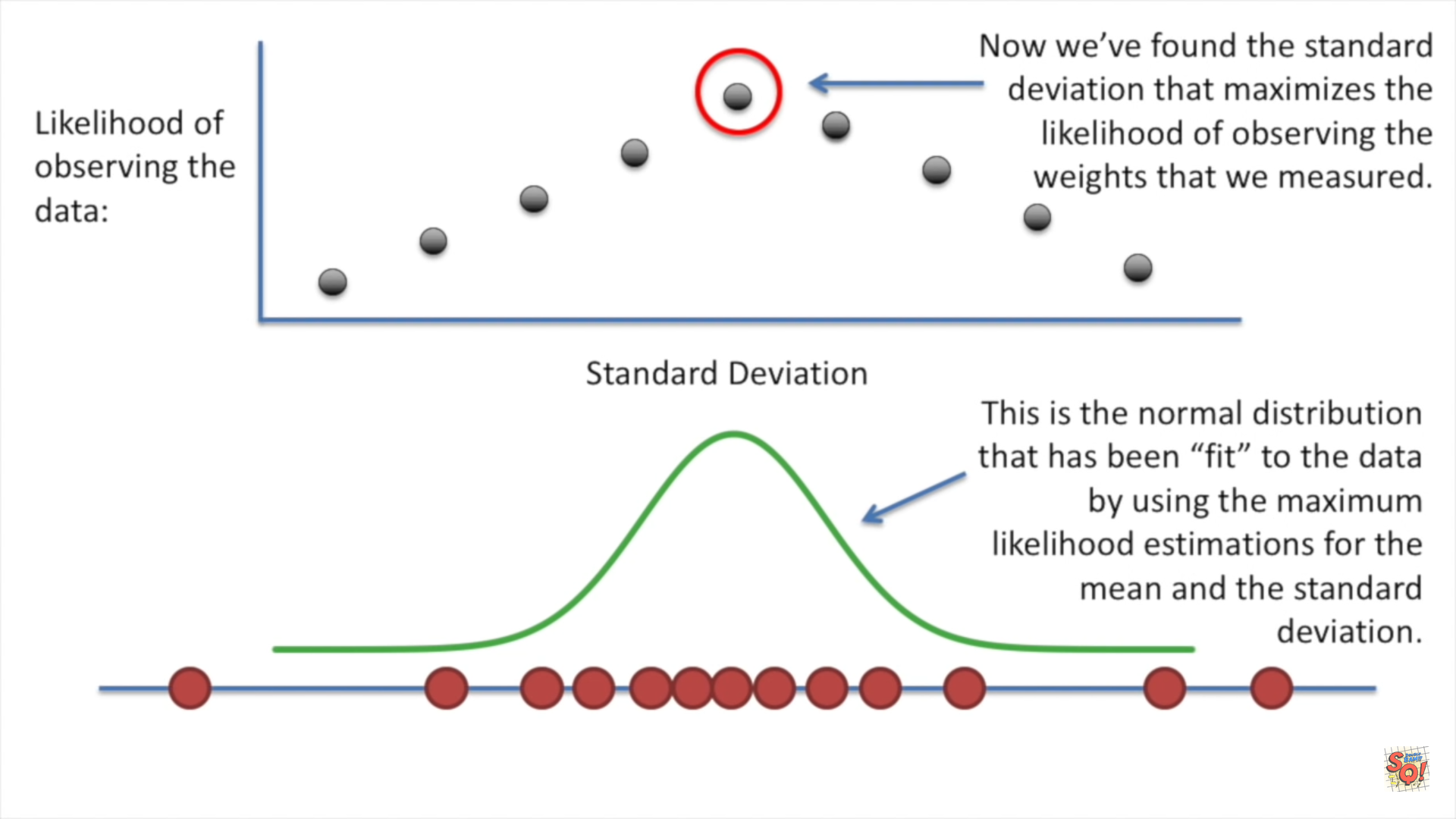


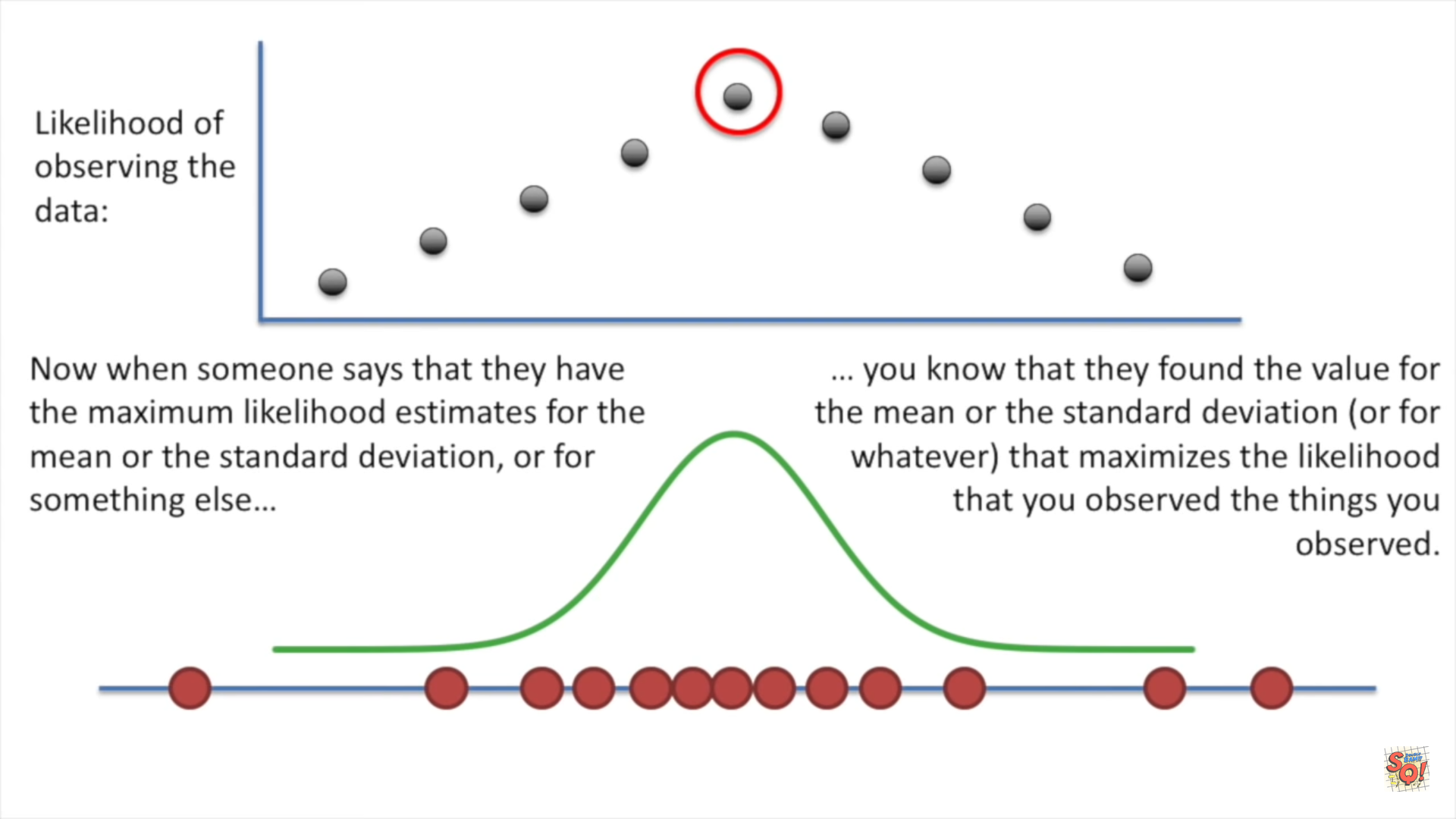


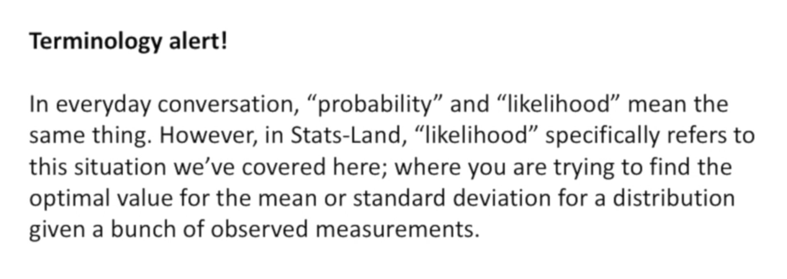
Lets calculate for Maximum Likelihood function estimate for the **standard deviation**

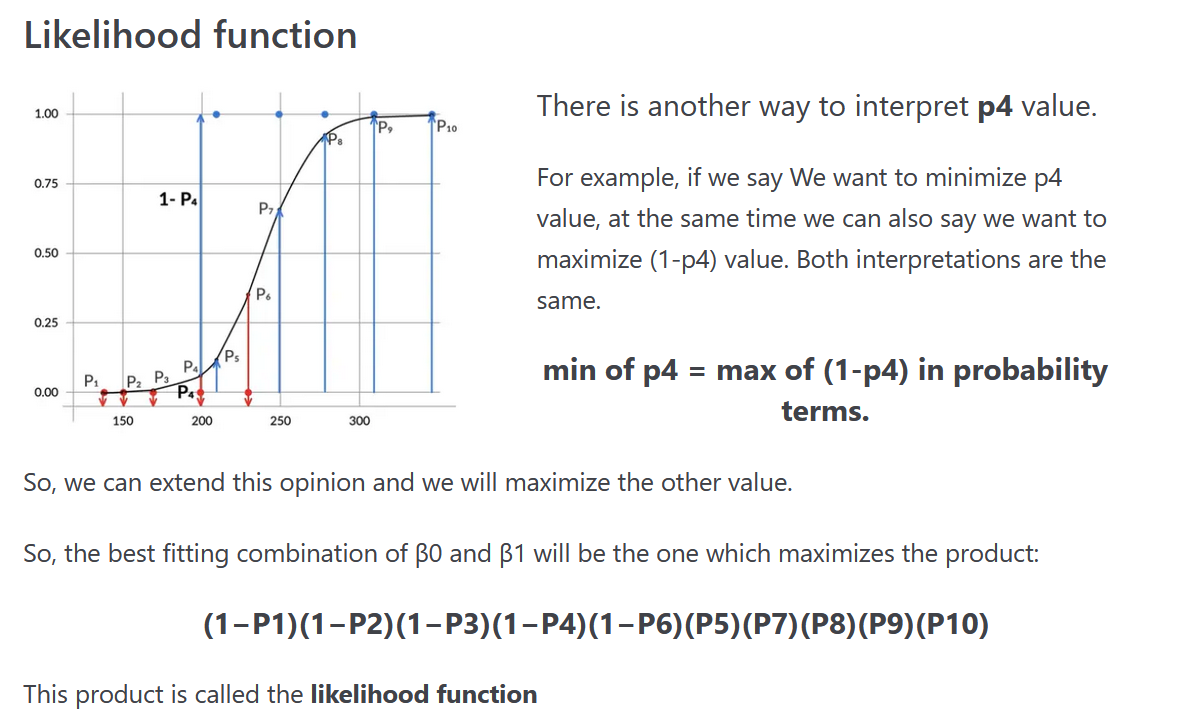














**What is the reason for multiplying all the individual probability??????**All the data-points are independent to each-other.   
Eg: Dog photos Cat photos .



The main idea is we want to find out whether is the image is cat/dog. It doesn’t depend the images within dogs/cats i.e   
(1 image in mobile camera, 1 image in DSLR, 1 image is Labrador, 1 image is kitten etc….)

