Summary:

The video describes how to convert decimal to base 8 (octal), which uses 0 through 7 digits. The way that the video describes converting decimal numbers is taking the largest power of 8 that goes into the number in question. The video uses 100 as the number to convert. 8^2 is used which is 64. We divide 100 by this number. The quotient is 1. The remainder of this equation is 36. This is then divided by 8 (8^1), which results in a quotient of 4. The second digit of base 8 converting from 100 is 4. The remainder of this is 4. You divide this by 1 because you are now looking at 8^0. Taking all the quotient values results in 144, which is the octal version of 100 decimal.

Essentially the method of converting from base 10 to base 8 is by looking at the highest power that goes into the number that needs to be converted. Then you divide the base 10 number by the value of this highest divisible power. The remainder of that is then divided by the power of 8, one less than the previous one, until you get to the final power of 0. The quotients from all of these are combined together to form the octal number.