# Week 1: Summary of Video

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**Class:** CSC120

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**How to chase bases in math**

First step is to define on what kind of bases and numbers you are dealing with and what you want to convert from and to. Base 10 is the normal base and everyday base. 100 to base 8 only uses 0 – 7 to represent numbers. The largest power of 8 is 8 squared and that would go into 100. Start with 8 squared which is 64 which would go into 100 just 1 time with a remainder of 36. Next take the number 36 and divide by the next lower power of 8. Which would be 8 to the 1st which would be 8. So, take 36 and then divide this by 8. Which goes into 36 4 times with a reminder of 4. So, the 2nd digit would be 4. The remainder 4 would go against 8 to the 0 power which would just be 8. So, take 4 and divide by 1 and you get 4. From there we have 144 in base 8 you take the first number and keep going by the remainder to find the next number.

64 / 100 = 1R36

36 /8 = 4R4

4/1 = 4

144 is the total take the number before R to get the solution.