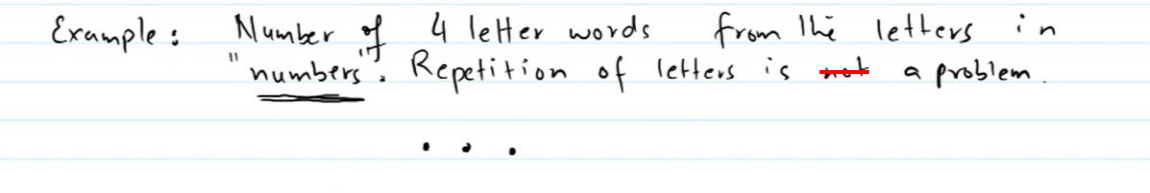
Week2: Video count-5: Example



In this Example we have to *form distinct 4- letter words where order of letters is not important* (not necessarily meaningful words). That means, if I form 'uber' a four letter word then all words formed using (u,b,e,r) would be counted as same. i.e., uber, beur, rbeu, …. all are same as 'uber'. Therefore, the collection of letters (u, b, e, r), no matter which order they are placed in, is counted as 1 arrangement.

After these assumptions, we can form all the combinations 7C4 to form words.

Note: In general, forming a word from a given set of letters is usually dealt as a SEQUENCE where repetition is not a problem but the order is important (for example anagrams). If we say the repetition of letters is not allowed but the order is important then form PERMUTATIONS. And if the situation is such that the order is not important but repetition is not allowed (distinct letters), then this is the case of COMBINATIONS.