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| Church-Turing Thesis | -any function on N is computable by a turing maching  -Turing machine is equivalent in computing power to a digital computer |
| Turing-Decidable Language | -If some TM will always halt with:  -REJECT, ACCEPT  -iff it is turing recognizable and co-turing recognizable |
| Turing recognizable language | -if some TM recognizes it  -REJECT, ACCEPT, or LOOP |
| Co-Turing recognizable language | -language that is the complement of a Turing-recognizable language |
| Countable set | -if it is finite or has the same size as N (natural #s) |
| Uncountable set | -set is infinite and bigger than N |
| Language A is mapping reducible to language B, A ≤m B |  |

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| Operation | Regular Language | CFG | TM Decidable | TM Recognizable |
| Union | Y | Y | Y | Y |
| Intersection | Y | N | Y | Y |
| Complementation | Y | N | Y | N |