

# Radix Sort

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The radix sort algorithm sorts items by placing the right most character in a list of strings or least significant digit in a list of numbers in order. Radix sort then moves on to the next character or number and continues the sort. The number of passes radix sort makes is determined by the amount of characters in a string, or digits in a number. For example, if a radix sort is performed on a list of three character strings, it will take three passes of the algorithm to complete the sort.

## Example:

Word list: {COW, DOG, SEA, RUG, ROW, MOB, BOX, TAB, BAR, EAR, TAR, DIG, BIG, TEA}

Initial list	First pass	Second pass	Third pass, sort complete
COW	SEA	TAB	BAR
DOG	TEA	BAR	BIG
SEA	MOB	EAR	BOX
RUG	TAB	TAR	COW
ROW	DOG	SEA	DIG
MOB	RUG	TEA	DOG
BOX	DIG	DIG	EAR
TAB	BIG	BIG	MOB
BAR	BAR	MOB	ROW
EAR	EAR	DOG	RUG
TAR	TAR	COW	SEA
DIG	COW	ROW	TAB
BIG	ROW	BOX	TAR
TEA	BOX	RUG	TEA