

Burrows-Wheeler Transform (BWT)

1. Create the BWT of $S = \textit{banana}\$$ using the table below.

| $\pi(S)$, cyclic permutations of S | rank | i | $\pi^{\text{sorted}}(S)$, sorted permutations of S | $A[i]$ | BW(S) |
|---------------------------------------|------|-----|---|--------|-----------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

2. Let $\text{BW}(S) = \textit{evrptte}\eii be the Burrows-Wheeler transform of a string S . Find S .

| F | ... | L | backtrace | build up S |
|---|-----|----|-----------|--------------|
| | | e | | |
| | | v | | |
| | | r | | |
| | | p | | |
| | | t | | |
| | | t | | |
| | | e | | |
| | | \$ | | |
| | | e | | |
| | | i | | |
| | | i | | |