

## **PATTERNMATCHINGWITHSUFFIXARRAY**(*Text*, *Pattern*, SUFFIXARRAY)

$minIndex \leftarrow 0$

$maxIndex \leftarrow |Text|$

**while**  $minIndex < maxIndex$

$midIndex \leftarrow (minIndex + maxIndex) / 2$

**if**  $Pattern > \text{suffix of } Text \text{ starting at position } SUFFIXARRAY(midIndex)$

$minIndex \leftarrow midIndex + 1$

**else**

$maxIndex \leftarrow midIndex$

$start \leftarrow minIndex$

$maxIndex \leftarrow |Text|$

**while**  $minIndex < maxIndex$

$midIndex \leftarrow (minIndex + maxIndex) / 2$

**if**  $Pattern < \text{suffix of } Text \text{ starting at position } SUFFIXARRAY(midIndex)$

$maxIndex \leftarrow midIndex$

**else**

$minIndex \leftarrow midIndex + 1$

$end \leftarrow maxIndex$

**if**  $start > end$

**return** "*Pattern* does not appear in *Text*"

**else**

**return** ( $start, end$ )