//str = L"banana$"; build\_SuffixTree with ukk\_add

P = 0,0,0,5,7, 9,5,0,7,0, 9,0

L = -1,-1,0,4,4, 2,6,2,6,1, 6,6

R = -1,-1,6,6,6, 3,6,3,6,1, 6,6

* 0 “” ...7
* 1 “”
* 2 “banana$” ...1
* 7 “na” ...2
  + 4 “na$” ...1
  + 8 “$” ...1
* 9 “a” ...3
  + 5 “na” ...2
    - 3 “na$” ...1
    - 6 “$” ...1
  + 10 “$” ...1
* 11 “$” ...1

visualize()

- ...7

+-- a...3

| +-- na...2

| | +-- nay...1

| | +-- y...1

| +-- y...1

+-- bananay...1

+-- na...2

| +-- nay...1

| +-- y...1

+-- y...1

SuffixTree(str).visualize();

+ :

+-- banana$.

+-+ a:

| +-+ na:

| | +-- na$.

| | +-- $.

| +-- $.

+-+ na:

| +-- na$.

| +-- $.

+-- $.

//str = L"i wish to wish the wish you wish to wish but if you wish the wish the witch wishes i wont wish the wish you wish to wish";

- ...89x 0

+-- \_...20x 1

| +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 80

| +-- i...2x 2

| | +-- \_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 38

| | +-- f\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 76

| +-- t...5x 2

| | +-- he\_wi...3x 7

| | | +-- sh\_...2x 10

| | | | +-- the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 64

| | | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 106

| | | +-- tch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 55

| | +-- o\_wish\_...2x 9

| | | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 88

| | | +-- the\_wish\_you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 114

| +-- w...10x 2

| | +-- i...9x 3

| | | +-- sh...8x 5

| | | | +-- \_...7x 6

| | | | | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 85

| | | | | +-- t...5x 7

| | | | | | +-- he\_wi...3x 12

| | | | | | | +-- sh\_...2x 15

| | | | | | | | +-- the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 69

| | | | | | | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 111

| | | | | | | +-- tch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 60

| | | | | | +-- o\_wish\_...2x 14

| | | | | | | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 93

| | | | | | | +-- the\_wish\_you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 119

| | | | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 102

| | | | +-- es\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 45

| | | +-- tch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 51

| | +-- ont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 36

| +-- you\_wish\_t...2x 11

| | +-- he\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 73

| | +-- o\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 97

+-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 79

+-- ch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 47

+-- e...4x 1

| +-- \_wi...3x 4

| | +-- sh\_...2x 7

| | | +-- the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 61

| | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 103

| | +-- tch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 52

| +-- s\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 40

+-- f\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 74

+-- h...12x 1

| +-- \_...8x 2

| | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 81

| | +-- t...5x 3

| | | +-- he\_wi...3x 8

| | | | +-- sh\_...2x 11

| | | | | +-- the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 65

| | | | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 107

| | | | +-- tch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 56

| | | +-- o\_wish\_...2x 10

| | | | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 89

| | | | +-- the\_wish\_you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 115

| | +-- wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 46

| | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 98

| +-- e...4x 2

| | +-- \_wi...3x 5

| | | +-- sh\_...2x 8

| | | | +-- the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 62

| | | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 104

| | | +-- tch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 53

| | +-- s\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 41

+-- i...12x 1

| +-- \_w...2x 3

| | +-- ish\_to\_wish\_the\_wish\_you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 120

| | +-- ont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 37

| +-- f\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 75

| +-- sh...8x 3

| | +-- \_...7x 4

| | | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 83

| | | +-- t...5x 5

| | | | +-- he\_wi...3x 10

| | | | | +-- sh\_...2x 13

| | | | | | +-- the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 67

| | | | | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 109

| | | | | +-- tch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 58

| | | | +-- o\_wish\_...2x 12

| | | | | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 91

| | | | | +-- the\_wish\_you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 117

| | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 100

| | +-- es\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 43

| +-- tch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 49

+-- nt\_wish\_the\_wish\_you\_wish\_to\_wish...1x 33

+-- o...5x 1

| +-- \_wish\_...2x 7

| | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 86

| | +-- the\_wish\_you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 112

| +-- nt\_wish\_the\_wish\_you\_wish\_to\_wish...1x 34

| +-- u\_wish\_t...2x 9

| | +-- he\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 71

| | +-- o\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 95

+-- s...9x 1

| +-- \_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 39

| +-- h...8x 2

| | +-- \_...7x 3

| | | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 82

| | | +-- t...5x 4

| | | | +-- he\_wi...3x 9

| | | | | +-- sh\_...2x 12

| | | | | | +-- the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 66

| | | | | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 108

| | | | | +-- tch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 57

| | | | +-- o\_wish\_...2x 11

| | | | | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 90

| | | | | +-- the\_wish\_you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 116

| | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 99

| | +-- es\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 42

+-- t...8x 1

| +-- \_...2x 2

| | +-- if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 77

| | +-- wish\_the\_wish\_you\_wish\_to\_wish...1x 32

| +-- ch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 48

| +-- he\_wi...3x 6

| | +-- sh\_...2x 9

| | | +-- the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 63

| | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 105

| | +-- tch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 54

| +-- o\_wish\_...2x 8

| | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 87

| | +-- the\_wish\_you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 113

+-- u...3x 1

| +-- \_wish\_t...2x 8

| | +-- he\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 70

| | +-- o\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 94

| +-- t\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 78

+-- w...10x 1

| +-- i...9x 2

| | +-- sh...8x 4

| | | +-- \_...7x 5

| | | | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 84

| | | | +-- t...5x 6

| | | | | +-- he\_wi...3x 11

| | | | | | +-- sh\_...2x 14

| | | | | | | +-- the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 68

| | | | | | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 110

| | | | | | +-- tch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 59

| | | | | +-- o\_wish\_...2x 13

| | | | | | +-- but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 92

| | | | | | +-- the\_wish\_you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 118

| | | | +-- you\_wish\_to\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 101

| | | +-- es\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 44

| | +-- tch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 50

| +-- ont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 35

+-- you\_wish\_t...2x 10

| +-- he\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 72

| +-- o\_wish\_but\_if\_you\_wish\_the\_wish\_the\_witch\_wishes\_i\_wont\_wish\_the\_wish\_you\_wish\_to\_wish...1x 96