

Practice QUESTions

BYOB

1) List indexing

a) Get (or iterate over) every row in a list

b) Get a specific element (say, letter) in a row of a list (of, say, words)
(i.e. get item [X] of row [Y] of [LIST])

2) Repeat Until vs. Repeat

What's wrong with this?

```
set [ LIST ] to [ 1, 1, 2, 2, 3, 13, 3, 4, 4, 4, 5 ]
set [ INDEX ] to 1
set [ NUMTOFIND ] to 13
repeat while [ [ item [ INDEX ] of [ LIST ] ] > [ NUMTOFIND ] ] and
             [ item [ INDEX ] of [ LIST ] ] < [ NUMTOFIND ] ]
    change [ INDEX ] by [ 1 ]
report [ INDEX ]
```

How would you fix it?

3) Joining / appending / concatenating letters/words (vs adding)

a) Generate a string of [NUM] characters of the [LETTER]

4) Modifying a list while its length is changing

a) Remove a certain duplicate item from a list:

```
set [ LIST ] to [ 1, 1, 2, 2, 3, 3, 3, 4, 4, 4, 5 ]
set [ INDEX ] to 1
set [ NUMTOREMOVE ] to 3
repeat [ length of [ LIST ] ]
  if [ item [ INDEX ] of [ LIST ] = [ NUMTOREMOVE ] ]
    remove item [ INDEX ] of [ LIST ]
  change [ INDEX ] by [ 1 ]
```

Does this work?

If it doesn't work, how would you fix it?

5) Problems that implicitly deal with the scope of variables

Variables: X and Y

```
modify [ X ] block
  script variable [ Y ]
  set [ Y ] to 2
  change [ X ] by [ 1 ]
  change [ Y ] by [ 1 ]
  say [ X ]      (a)
  say [ Y ]      (b)
```

```
set [ X ] to [ 1 ]
set [ Y ] to [ 1 ]
modify [ X ] block
  say [ X ]      (c)
  say [ Y ]      (d)
```

What would (a), (b), (c), and (d) make the sprite say?

a: b: c: d: