Itertools

\*Iterators are not lists. Iterators can be directly converted to lists with the list(iterator) constructor.

**Infinite iterators:**

count(start, [step]) – count from start by step (optional) until infinity.

cycle(p) – cycle through p, then go back to the beginning and repeat infinitely.

repeat(elem, [n]) – repeat elem n times. If n is not defined, repeat infinitely.

**Other iterators:**

accumulate(p, [func]) – iterator with accumulated result of func (+ by default). Think of this like a running total.

chain.from\_iterable(iterable) – takes a list of lists and flattens it to a single long list, then returns the result as an iterator.

filter/filterfalse(predicate, seq) – filter items where predicate is true/false, respectively. Predicate should be a function. Note that filter is from the python standard library, filterfalse is from itertools.

takewhile/dropwhile(predicate, seq) – only keep items before/after predicate is true, respectively.

starmap(func, seq) – takes a list of tuples, where the tuples are inputs for func. Returns an iterator with the outputs of func for each tuple.

**Combinatoric iterators – on combinations/permutations page**