

```
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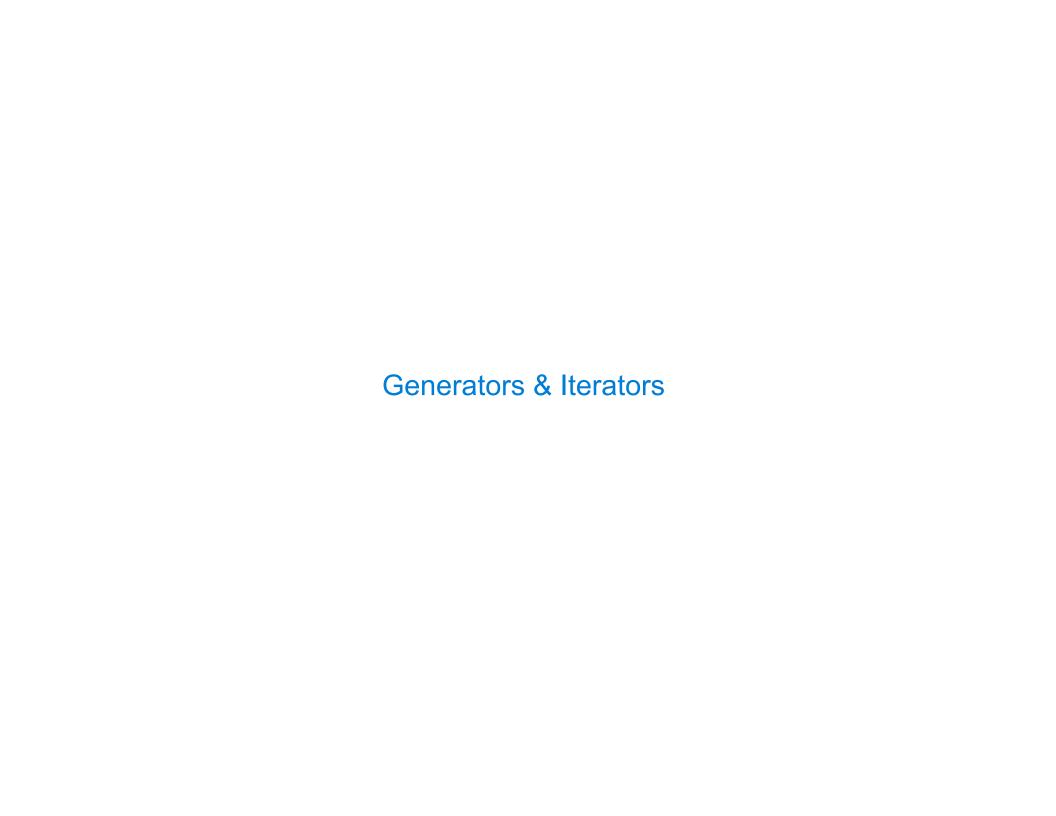
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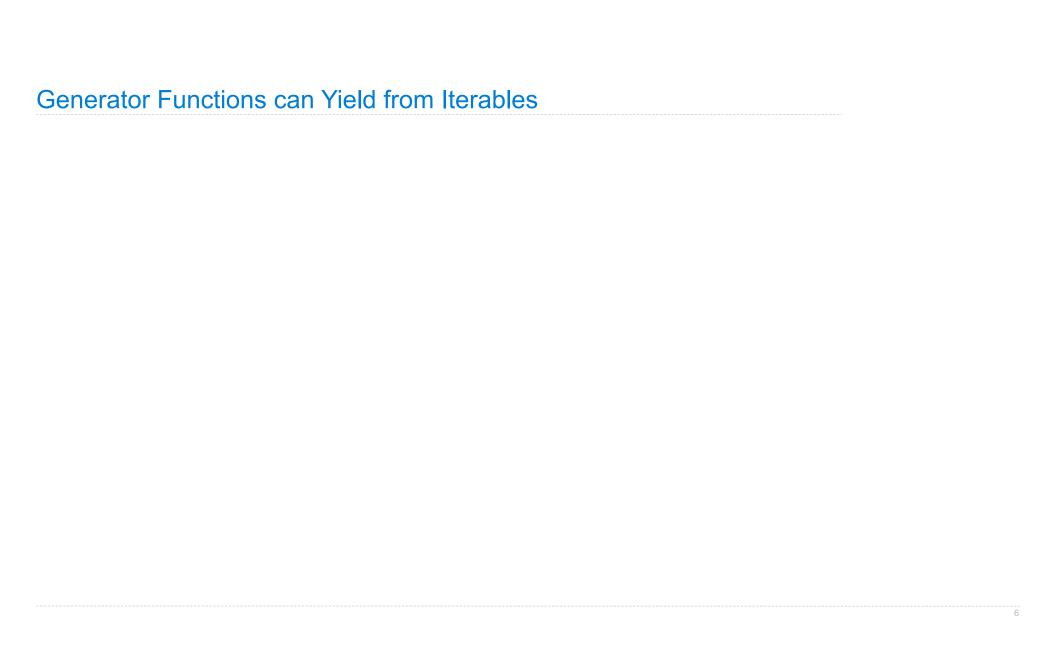
When a generator function is called, it returns a generator that iterates over its yields

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(Demo)





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A yield from statement yields all values from an iterator or iterable (Python 3.3)

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```
>>> list(a_then_b([3, 4], [5, 6]))
[3, 4, 5, 6]

def a_then_b(a, b):
    for x in a:
        yield x
    for x in b:
        yield x
```

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[5, 4, 3, 2, 1]

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>>> list(countdown(5))
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def countdown(k):
   if k > 0:
        yield k
        yield from countdown(k-1)
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A yield from statement yields all values from an iterator or iterable (Python 3.3)
                              >>> list(a_then_b([3, 4], [5, 6]))
                              [3, 4, 5, 6]
                          def a_then_b(a, b): def a_then_b(a, b):
                              for x in a:
                                                      yield from a
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                              for x in b:
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                               def countdown(k):
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(Demo)

Example: Partitions

A partition of a positive integer n, using parts up to size m, is a way in which n can be expressed as the sum of positive integer parts up to m in increasing order.

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2 + 4 = 6
                                 def count_partitions(n, m):
                                     if n == 0:
1 + 1 + 4 = 6
                                         return 1
3 + 3 = 6
                                     elif n < 0:
                                         return 0
1 + 2 + 3 = 6
                                     elif m == 0:
1 + 1 + 1 + 3 = 6
                                         return 0
                                     else:
2 + 2 + 2 = 6
                                         with m = count partitions(n-m, m)
1 + 1 + 2 + 2 = 6
                                         without m = count partitions(n, m-1)
1 + 1 + 1 + 1 + 2 = 6
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