

Generation of Combinatorial Objects

Here are the codes for the generation of combinations in standard combinatorial settings.

Tuples

```
1 from itertools import product
2 for c in product("abc", repeat=2):
3     print("".join(c))
```

Permutations

```
1 from itertools import permutations
2 for c in permutations("abc", 2):
3     print("".join(c))
```

Combinations

```
1 from itertools import combinations
2 for c in combinations("abc", 2):
3     print("".join(c))
```

Combinations with repetitions

```
1 from itertools import combinations_with_replacement
2 for c in combinations_with_replacement("abc", 2):
3     print("".join(c))
```