

Filename: les6\_task1.py

| Line # | Mem usage  | Increment  | Line Contents   |
|--------|------------|------------|---|
| 22     | 14.617 MiB | 14.617 MiB | @profile  |
| 23     |            |            | def max_neg1(a_max_size):                                       |
| 24     | 14.629 MiB | 0.012 MiB  | inf = float('inf')  |
| 25     | 14.629 MiB | 0.000 MiB  | max_neg_elem = -inf   |
| 26     | 14.629 MiB | 0.000 MiB  | max_neg_elem_i = -inf   |
| 27     |            |            |   |
| 28     | 14.629 MiB | 0.000 MiB  | a = [random.randint(-1000, 1000) for _ in range(0, a_max_size)] |
| 29     |            |            | # for item in a:  |
| 30     |            |            | # print(f'{item:>5}',end='')                                    |
| 31     | 14.629 MiB | 0.000 MiB  | for i,elem in enumerate(a):                                     |
| 32     | 14.629 MiB | 0.000 MiB  | if elem < 0 and elem > max_neg_elem:                            |
| 33     | 14.629 MiB | 0.000 MiB  | max_neg_elem = elem   |
| 34     | 14.629 MiB | 0.000 MiB  | max_neg_elem_i = i  |
| 35     | 14.629 MiB | 0.000 MiB  | if max_neg_elem > -inf:   |
| 36     |            |            | # print()   |
| 37     |            |            | # print('Index:')   |
| 38     |            |            | # print(max_neg_elem_i)   |
| 39     |            |            | # print('Max negative element:')                                |
| 40     |            |            | # print(max_neg_elem)   |
| 41     | 14.629 MiB | 0.000 MiB  | return (max_neg_elem_i,max_neg_elem)                            |

Filename: les6\_task2.py

| Line # | Mem usage  | Increment  | Line Contents  |
|--------|------------|------------|--|
| 5      | 14.594 MiB | 14.594 MiB | @profile   |
| 6      |            |            | def max_neg2(a_max_size):  |
| 7      | 14.605 MiB | 0.012 MiB  | inf = float('inf')   |
| 8      | 14.605 MiB | 0.000 MiB  | max_neg_elem = -inf  |
| 9      | 14.605 MiB | 0.000 MiB  | max_neg_elem_i = -inf  |
| 10     |            |            |  |
| 11     | 14.605 MiB | 0.000 MiB  | a = {i :random.randint(-1000, 1000) for i in range(0, a_max_size)} |
| 12     |            |            | # for item in a:   |
| 13     |            |            | # print(f'{item:>5}',end='')                                       |
| 14     | 14.605 MiB | 0.000 MiB  | for i,elem in a.items():   |
| 15     | 14.605 MiB | 0.000 MiB  | if elem < 0 and elem > max_neg_elem:                               |
| 16     | 14.605 MiB | 0.000 MiB  | max_neg_elem = elem  |
| 17     | 14.605 MiB | 0.000 MiB  | max_neg_elem_i = i   |
| 18     | 14.605 MiB | 0.000 MiB  | if max_neg_elem > -inf:  |
| 19     |            |            | # print()  |
| 20     |            |            | # print('Index:')  |
| 21     |            |            | # print(max_neg_elem_i)  |
| 22     |            |            | # print('Max negative element:')                                   |
| 23     |            |            | # print(max_neg_elem)  |
| 24     | 14.605 MiB | 0.000 MiB  | return (max_neg_elem_i, max_neg_elem)                              |

Filename: les6\_task3.py

| Line # | Mem usage  | Increment  | Line Contents   |
|--------|------------|------------|---|
| =====  |            |            |   |
| 5      | 14.586 MiB | 14.586 MiB | @profile  |
| 6      |            |            | def max_neg3(a_max_size):                                       |
| 7      | 14.586 MiB | 0.000 MiB  | a = [random.randint(-1000, 1000) for i in range(0, a_max_size)] |
| 8      | 14.586 MiB | 0.000 MiB  | b = [value for value in a if value < 0]                         |
| 9      |            |            |   |
| 10     | 14.586 MiB | 0.000 MiB  | if len(b) > 0:  |
| 11     | 14.586 MiB | 0.000 MiB  | max_neg_elem = max(b)   |
| 12     | 14.586 MiB | 0.000 MiB  | for i,elem in enumerate(a):                                     |
| 13     | 14.586 MiB | 0.000 MiB  | if elem == max_neg_elem:  |
| 14     | 14.586 MiB | 0.000 MiB  | max_neg_elem_i = i  |
| 15     | 14.586 MiB | 0.000 MiB  | if a_max_size > 0:  |
| 16     | 14.586 MiB | 0.000 MiB  | return (max_neg_elem_i, max_neg_elem)                           |
| 17     |            |            | else:   |
| 18     |            |            | return None   |