

11-22_Carpenter_solution

November 22, 2021

```
[3]: from scipy.optimize import linprog
import numpy as np
```

```
[7]: c = [-5, -3]
A = [[2, 1], [1, 2]]
a = [40, 50]
```

```
[8]: res = linprog(
    c,
    A_ub=A,
    b_ub=a,
    method="simplex",
)
```

```
[10]: -res.fun
```

```
[10]: 110.0
```

```
[11]: res.x
```

```
[11]: array([10., 20.])
```

```
[12]: c = [-5, -3, 2]
A = [[2, 1, -1], [1, 2, 0]]
```

```
[13]: res = linprog(
    c,
    A_ub=A,
    b_ub=a,
    method="simplex",
)
```

```
[14]: -res.fun
```

```
[14]: 130.0
```

```
[15]: res.x
```

```
[15]: array([50., 0., 60.]
```

```
[ ]:
```