Exercise 2

6/6 points (graded)

Please help the burglar out! For each of the following greedy metrics, what should be the burglar's first two choices of items? Here's a table of the items from the slides:

|  |  |  |  |
| --- | --- | --- | --- |
| **item** | **$** | **kg** | **$/kg** |
|  |  |  |  |
| clock | 175 | 10 | 17.5 |
| picture | 90 | 9 | 10 |
| radio | 20 | 4 | 5 |
| vase | 50 | 2 | 25 |
| book | 10 | 1 | 10 |
| computer | 200 | 20 | 10 |

For this problem, assume that the maximum weight the burglar can carry is 20.

1. **Metric: max value**

The burglar should first pick:



and should next pick:



1. **Metric: min weight**

The burglar should first pick:



 and should next pick:



1. **Metric: max value/weight ratio**

The burglar should first pick:



and should next pick:

