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| **Problem Statement** | |
|  | Dachshund is a popular dog breed. In this problem, a miniature dachshund is defined as a dachshund whose weight is not more than 5,000 grams.  Lun the miniature dachshund loves mikan (satsuma oranges). She has just bought some mikan. You are given a int[] **mikan**. It gives the weight of all mikan she bought. For each valid i, **mikan**[i] is the weight of the i-th mikan in grams.  You are also given an int **weight**. Currently, Lun weighs **weight** grams. When she eats i-th mikan, her weight increases by **mikan**[i] grams. If she eats multiple mikan, her weight increases by their total weight. She cannot eat just a part of a mikan. In other words, if she chooses to eat a mikan, she eats it completely.  She wants to remain being a miniature dachshund. That is, she wants her weight not to exceed 5,000 grams. Under this condition, calculate and return the maximum number of mikan Lun can eat. |
| **Definition** | |
|  | |  |  | | --- | --- | | Class: | MiniatureDachshund | | Method: | maxMikan | | Parameters: | int[], int | | Returns: | int | | Method signature: | int maxMikan(int[] mikan, int weight) | | (be sure your method is public) | | |
| **Limits** | |
|  | |  |  | | --- | --- | | Time limit (s): | 2.000 | | Memory limit (MB): | 64 | |
| **Constraints** | |
| - | **mikan** will contain between 1 and 50 elements, inclusive. |
| - | Each element of **mikan** will be between 50 and 200, inclusive. |
| - | **weight** will be between 3,000 and 5,000, inclusive. |
| **Examples** | |
| 0) |  |
|  | |  |  |  | | --- | --- | --- | | |  | | --- | | {100, 100, 100, 100, 100} | | 4750 | | | Returns: 2 | | |  | | --- | | Here, Lun weighs 4,750 grams and has bought 5 mikan, each of which weighs 100 grams. When she eats 2 of these, her weight will be 4,950 grams. She should not eat more. | | |
| 1) |  |
|  | |  |  |  | | --- | --- | --- | | |  | | --- | | {100, 100, 100, 100, 50} | | 4750 | | | Returns: 3 | | |  | | --- | | This time, one of the mikan is smaller. She can eat it with 2 of the 100-gram mikan. Note that her weight is allowed to be exactly 5,000 grams. | | |
| 2) |  |
|  | |  |  |  | | --- | --- | --- | | |  | | --- | | {120, 90, 130, 100, 110, 80} | | 3000 | | | Returns: 6 | | |  | | --- | | When she is light enough, she can eat all of the mikan she has bought. | | |
| 3) |  |
|  | |  |  |  | | --- | --- | --- | | |  | | --- | | {50} | | 5000 | | | Returns: 0 | | |  | | --- | | When her weight is already 5,000 grams, she should not eat anything. | | |
| 4) |  |
|  | |  |  |  | | --- | --- | --- | | |  | | --- | | {200, 50, 200, 50, 200, 50, 200, 50} | | 4800 | | | Returns: 4 | | |  | | --- | |  | | |

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