**Siena College’s 35th Annual High School Programming Contest**

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##### **March 31, 2023**

###### Gold Problem #3: Dicey not Yahtzee

Background Information: Dicey is a game played with five dice similar to the commercially available game called Yahtzee. The major difference is that the player only rolls one time. The following table shows the possible results and scoring.



| **Roll Type** | **Description and Scoring** | **Examples Rolls & Scores** | |
| --- | --- | --- | --- |
| Five of a Kind | All five dice show the same number.  Score is 1000 + the sum of all the dice. | 6 6 6 6 6 1030  3 3 3 3 3 1015 | |
| Four of a Kind | Four of the dice show the same number.  Score is 600 + the sum of the four matching dice. | 5 5 2 5 5 620  3 1 1 1 1 604 | |
| Full House | Three dice show the same number and the other two dice show the same number.  Score is 400 + the sum of all the dice. | 4 4 4 5 5 422  3 2 3 2 2 412 | |
| Three of a Kind | Exactly three dice show the same number and the other two show different numbers.  Score is 300 + the sum of the three matching dice. | 2 3 2 4 2 306  5 5 1 6 5 315 | |
| Two Pair | Two of the dice show the same number, two of the other dice show the same number but a different one than the first pair, and the remaining die has a different number than the numbers of the two pairs.  Score is 200 + the sum of the four dice showing the pairs. | 1 2 3 2 1 206  6 6 1 5 5 222 | |
| One Pair | Two of the dice have the same number and the remaining three dice have different numbers from each other and the number for the pair.  Score is 100 + the sum of the paired dice. | 4 5 3 1 4 108  1 2 3 5 5 110 | |
| Straight | When arranged in order dice show the values 1, 2, 3, 4, 5 OR the values 2, 3, 4, 5, 6  Score is 500 + the sum of the numbers on all five dice. | 4 3 5 6 2 520  1 2 3 4 5 515 | |
| Nothing | All of the dice show different values and the roll is not a Straight.  Score is just the sum of all five dice. | 1 2 3 6 5 17 | |

###### Programming Problem:

Input:  Five integers between 1 and 6 **each on a separate line.**

Output: The Dicey score for the input values based on the rules in the table above.

Example 1: Example 2: Example 3:

Input: 6 Input: 3 Input: 1

6 2 2

6 3 3

6 2 6

6 3 5

Output: 1030 Output: 413 Output: 17