Project Gourd #2

Consider the following 20x20 grid of integers:

```
 8   2 22 97 38 15   0 40   0 75   4   5   7 78 52 12 50 77 91   8
49 49 99 40 17 81 18 57 60 87 17 40 98 43 69 48   4 56 62   0
81 49 31 73 55 79 14 29 93 71 40 67 53 88 30   3 49 13 36 65
52 70 95 23   4 60 11 42 69 24 68 56   1 32 56 71 37   2 36 91
22 31 16 71 51 67 63 89 41 92 36 54 22 40 40 28 66 33 13 80
24 47 32 60 99   3 45   2 44 75 33 53 78 36 84 20 35 17 12 50
32 98 81 28 64 23 67 10 26 38 40 67 59 54 70 66 18 38 64 70
67 26 20 68   2 62 12 20 95 63 94 39 63   8 40 91 66 49 94 21
24 55 58   5 66 73 99 26 97 17 78 78 96 83 14 88 34 89 63 72
21 36 23   9 75   0 76 44 20 45 35 14   0 61 33 97 34 31 33 95
78 17 53 28 22 75 31 67 15 94   3 80   4 62 16 14   9 53 56 92
16 39   5 42 96 35 31 47 55 58 88 24   0 17 54 24 36 29 85 57
86 56   0 48 35 71 89   7   5 44 44 37 44 60 21 58 51 54 17 58
19 80 81 68   5 94 47 69 28 73 92 13 86 52 17 77   4 89 55 40
 4 52   8 83 97 35 99 16   7 97 57 32 16 26 26 79 33 27 98 66
88 36 68 87 57 62 20 72   3 46 33 67 46 55 12 32 63 93 53 69
 4 42 16 73 38 25 39 11 24 94 72 18   8 46 29 32 40 62 76 36
20 69 36 41 72 30 23 88 34 62 99 69 82 67 59 85 74   4 36 16
20 73 35 29 78 31 90   1 74 31 49 71 48 86 81 16 23 57   5 54
 1 70 54 71 83 51 54 69 16 92 33 48 61 43 52   1 89 19 67 48
```

Note that four of the integers in a single row are marked in red. The sum of these four integers is: 20 + 95 + 63 + 94 = 272. What is the greatest sum of four adjacent integers in the horizontal direction in the 20x20 grid?

Your task:
Write a Java program that answers the question asked above. Your program should only display the greatest sum; that is, the output generated by your program should be a single integer (on its own line) representing the greatest sum.

Requirements:
    (1) Submit a **single** **.java source** file.
    (2) You must read the input from standard input (`stdin`). The format of the input will be a single line of 400 integers, each separated by a space. You must store the integers in an array.
    (3) Display only the greatest sum (to `stdout` on its own line).
    (4) Even though the input is provided as a single line, consider the integers in a 20x20 grid as described above. Calculate the greatest sum in the entire grid of four adjacent integers in the horizontal direction **without wrapping around** to the next row! Note that the four integers marked in blue in the grid above **do not constitute a valid sum** because they are not in the same row.
    (5) Work together with your partner from the group story assignment.

Hints:
    (1) Use a `Scanner`.
    (2) The method `nextInt()` of the class `Scanner` will help a lot.
    (3) Consider calculating the row and column (in the grid) of the integers as they are being processed.