

Problem of the Month - March 2024*

2	4	5	6	4	9	
7	10	12	10	6		

Table 1: Game board

Dr. Math is playing a game on the game board above. The goal is for Dr. Math to accumulate the highest number of points according to the following rules:

1. The game begins with the player on the left-most space on the board.
2. The player must end up on the right-most space on the board.
3. On any given space that is not the right-most space, the player must choose a number in the space to add to their total. If the player chooses the top number, they advance one space to the right. If they choose the bottom number (if available), they advance two spaces to the right. (Note that there is no bottom number to choose on the penultimate space since that would send you off the board.)

For example, Dr. Math could select the 2, advance one space to the right, select the 4, advance one space to the right, select the 12, advance two spaces to the right, select the 6, advance two spaces to the right, ending the game. In this case, Dr. Math gets 24 points.

What is the maximum score that Dr. Math can get? Your solution should not involve a brute-force attempt to find all possibilities.

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