Snake road cross problem

There is an snake of initial length of Li, It wants to cross a road of size Nx4 which is full of hurdles and frogs.

The snake can move either left or right at a time in order to choose the frog it wants to eat.

Each frog has its weight Wi and the hurdle gives pain of Pi If the snake choose to pass through it.

Every time if the snake eat the frog it get its length increased by the value of

Wi (Li = Li+Wi) and if it strikes with hurdle it is decreased by the value Pi (Li = Li-Pi).

The snake may die or live before reaching the other end.

See the figure below:

|  |  |  |  |
| --- | --- | --- | --- |
| F | F | F | H |
| H | F | F | H |
| F | F | H | F |
| F | H | F | F |
| F | F | H | F |
| H | F | H | F |

Find the maximum length of the snake before it reaches to other end.

Output the result as Lf and die/live i.e. max length it can achieve and weather it is alive or not.