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Question 4

**(unable to complete the full question but tried my best to explain as best as I could understand)*

We will keep track of the accumulative sums through creating a 2D prefix sum array. It will take us a time of $O(n^2)$ to create this.

As we add values into the prefix sum array, we can check if we have a valid $n * n$ square area to calculate based on our current index, and if so then we perform the calculation.

Keeping track of our maximum sum area will let us find the optimum square of apples in $O(n^2)$ time while creating this array.