Input Size(n)	Ratio	No. of recursion	Ratio	No. of iteration	Ratio
4		1		2	
8	2	12	12	6	3
12	1.5	88	7.33	10	3.33
16	1.33	609	6.92	14	1.4
20	1.25	4180	6.86	18	1.28
24	1.2	28656	6.85	22	1.22
28	1.16	196417	6.85	26	1.18
32	1.14	1346268	6.85	30	1.15

Recursion solution
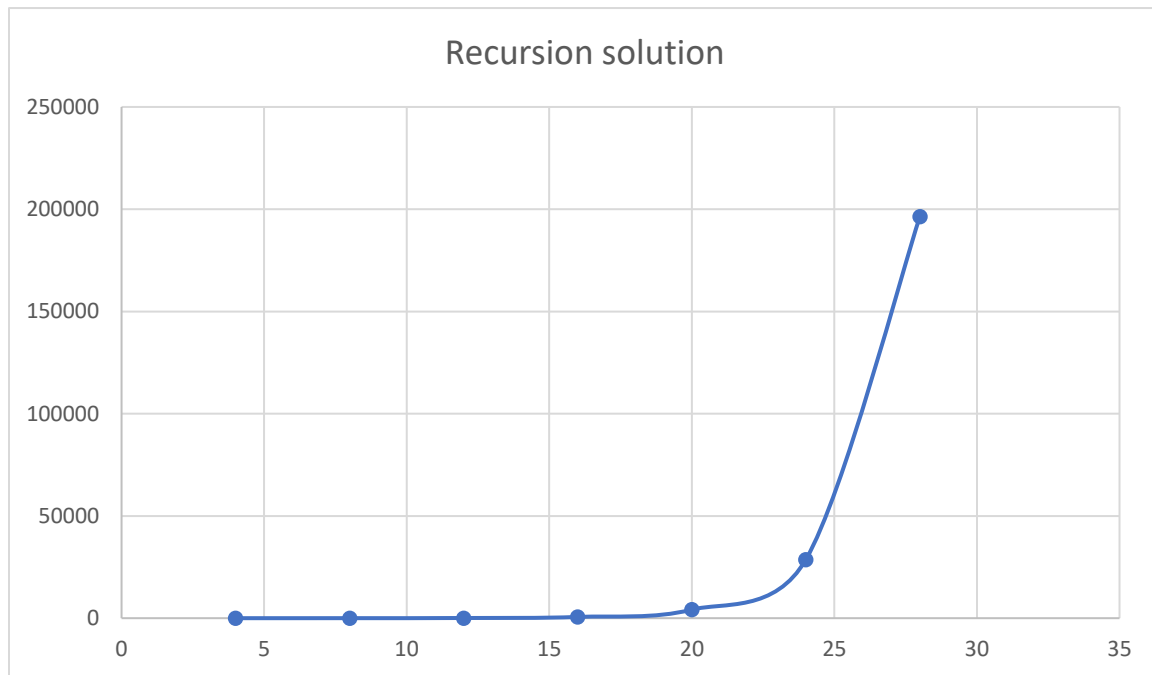
The time complexity for recursive solution is $O(2^n)$.

Dynamic programming
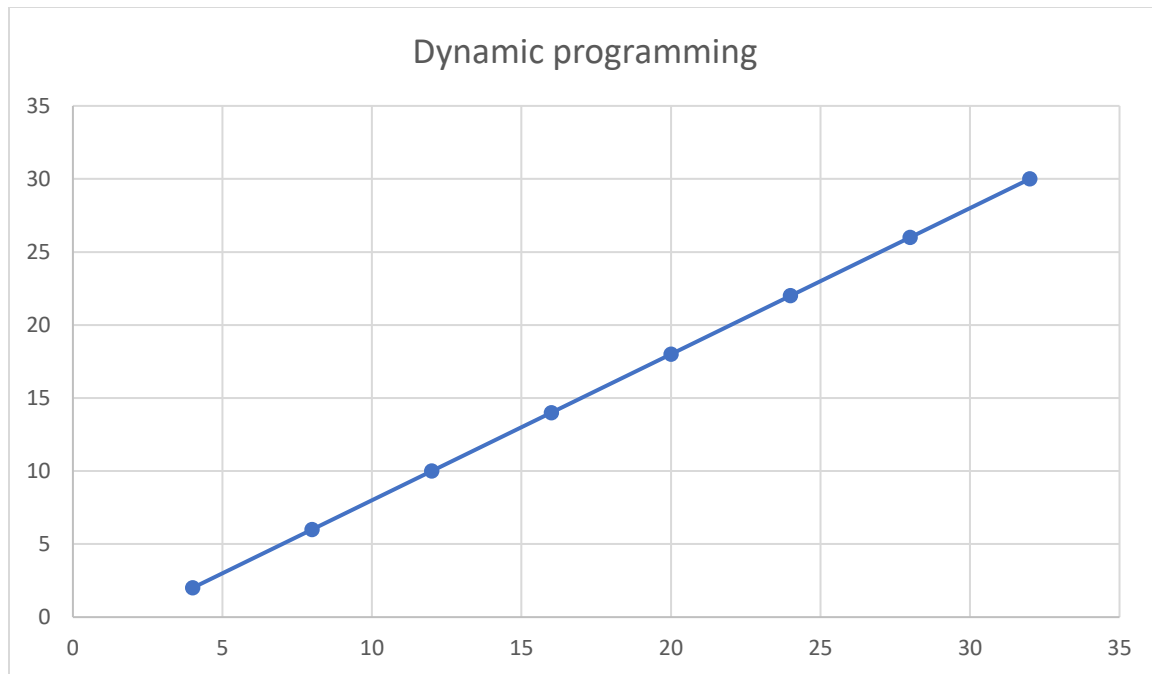
The time complexity for dynamic programming solution is O(n).

Conclusion:

 From the above table and graph, we can conclude that dynamic programming is much faster than recursive solution.