Let's assume that the locations are sorted by distance.

We'll introduce a parameter x into the problem, and define

Rev(i,x) = the best solution using locations L[0..i], with no location past distance x-5.

The recurrence relation for Rev(i,x) looks like this:

If dist(i) > x-5, Rev(i,x) = Rev(i-1,x)

Else, Rev(i,x) = max{ Rev(i-1,x),
value(i) + Rev(i-1,dist(i))
}

To permit solutions that include the last location, we introduce a special value of d: "infinity".

Base cases:
For all x,
Rev(0,x) = 0 if dist(0) > x-5
= value(0) if dist(0) <= x-5

	x							
dist(i)		**4**	**7.3**	**9**	**10.5**	**12.9**	**infinity**	
	4	0	0	17	17	17	17	
	7.3	0	0	17	17	49	49	
	9	0	0	17	17	49	56	
	10.5	0	0	17	17	49	67	
	12.9	0	0	17	17	49	68	

I will leave it up to you to figure out how to determine the details of the optimal solution.