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

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

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

The recurrence relation for \( \text{Rev}(i,x) \) looks like this:

If \( \text{dist}(i) > x-5 \), \( \text{Rev}(i,x) = \text{Rev}(i-1,x) \)

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

To permit solutions that include the last location, we introduce a special value of \( d \): “infinity”.

Base cases:
For all \( x \),
\[
\begin{align*}
\text{Rev}(0,x) &= 0 \text{ if dist}(0) > x-5 \\
&= \text{value}(0) \text{ if dist}(0) \leq x-5
\end{align*}
\]

<table>
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<th>dist(i)</th>
<th>x</th>
<th>4</th>
<th>7.3</th>
<th>9</th>
<th>10.5</th>
<th>12.9</th>
<th>infinity</th>
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</table>

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