\textrm{Suppose }\sum\_{k=1}^{i}w\_{k}>W\textrm{ and }\sum\_{k=1}^{i-1}w\_{k}\leq W



\mathrm{OPT}\leq \sum\_{k=1}^{i-1}v\_{k}+\frac{W-\sum\_{k=1}^{i-1}w\_{k}}{w\_{i}}v\_{i}

