$$\left(1+\frac{i}{2}\right)\sum_{t=0}^{n-1} v^{t+1}\left[\left(1-\frac{l_{x+t+1}}{l_x}\right)-\left(1-\frac{l_{x+t}}{l_x}\right)\right]\left(1-\frac{1}{2n}-\frac{t}{n}\right)$$