TIME VALUE EXAMPLES

1. How much will you have if you place $1,000 in the bank and leave it for 10 years at 6% annual interest?

\[ FV = \left[ P \rightarrow F_{6\%10\text{yr}} \right] \times PV = \left[ 1.7908 \right] \times 1,000 = 1,790.80 \]

2. When it matures in 20 years, a savings bond will pay $50. At 5% annual interest how much should the bond sell for currently?

\[ PV = \left[ F \rightarrow P_{5\%20\text{yr}} \right] \times FV = \left[ 0.3769 \right] \times 50 = 18.85 \]

3. If you pull $30,000 from bank to buy a pickup, how much per year are you giving up over the next 5 years? Effective interest rate would have been 6% per year.

\[ AV = \left[ P \rightarrow A_{6\%5\text{yr}} \right] \times PV = \left[ 0.2374 \right] \times 30,000 = 7,122.00 \]

4. If you then sell that pickup for $16,000 at the end of 5 years, how much is that on a per-year basis? Interest still is 6%.

\[ AV = \left[ F \rightarrow AV_{6\%5\text{yr}} \right] \times FV = \left[ 0.1774 \right] \times 16,000 = 2,883.40 \]