

1 Amortization Table

1) John gets a \$7000 loan that makes payments of \$1600 every six months, at 5% p.a compounded quarterly. Determine the term of the loan and construct an amortization schedule.

Step 1: Set Up

$$\begin{aligned} P/Y &= 2 & PMT &= -1600 \\ C/Y &= 4 & PV &= 7000 \\ I/Y &= 5 & FV &= 0 \\ CPT N &= 4.69308 \\ t &= 2 \text{ years and 4 months} \end{aligned}$$

Step 2: Enter AMORT Mode

$$\boxed{2ND} \quad \boxed{AMORT} \quad \boxed{PV} \quad \boxed{SET} \quad \boxed{ENTER}$$

Step 3: CPT Periods

$$\begin{aligned} P1 = P2 &= 1 \quad \boxed{ENTER} \\ \boxed{\downarrow} \text{ BAL} &= \text{Outstanding balance} \\ \boxed{\downarrow} \text{ PRN} &= \text{Principal repaid} \\ \boxed{\downarrow} \text{ INT} &= \text{Interest paid} \\ \boxed{\text{Repeat for } P1=P2=2, 3, 4} \end{aligned}$$

Step 4: Compute Last Row

$$\begin{aligned} P1 = P2 &= 5 \\ \text{Principal Repaid} &= \text{Previous Outstanding Loan} \\ \text{Interest Paid} &= INT \\ \text{Amount Paid} &= \text{Principal Repaid} + \text{BAL} \\ \text{Outstanding Loan} &= \\ \text{Balance} &= \$0 \end{aligned}$$

Step 5: Complete Table

Payment Number	Amount Paid	Interest Paid	Principal Repaid	Outstanding Loan Balance
0	\$0	\$0	\$0	\$7000
1	\$1600.00	\$176.09	\$1423.91	\$5576.09
2	\$1600.00	\$140.27	\$1459.73	\$4116.36
3	\$1600.00	\$103.55	\$1496.45	\$2619.92
4	\$1600.00	\$65.91	\$1534.09	\$1085.83
5	\$1113.15	\$27.32	\$1085.83	\$0
Total	\$7513.15	\$513.14	\$7000.00	