

Practice Problems

CATEGORY: HP12c

TOPIC: CALCULATE THE SINKING FUND FACTOR

Problem 1 – Calculate the required periodic payment based on the following information.

Amount to accumulate	\$650,000
Annual interest rate	5%
Number of years	7 years
Compounding frequency	Monthly

Problem Solution – NEXT PAGE

Practice Problems

CATEGORY: HP12c

TOPIC: CALCULATE THE SINKING FUND FACTOR

Problem 1 – Calculate the required periodic payment based on the following information.

Amount to accumulate	\$650,000
Annual interest rate	5%
Number of years	7 years
Compounding frequency	Monthly

Problem Solution

KEYSTROKES	DISPLAY	COMMENTS
f CLX	0.00	Clear calculator registers
650000 FV	650,000.00	Enter the amount to be accumulated in the FV register
5 g i	0.42	Calculates periodic (monthly) interest rate
7 g n	84.00	Calculates number of monthly deposits that need to be made and enters into the n register
PMT	-6,478.71	Calculates the amount that must be deposited on a monthly basis

Practice Problems

CATEGORY: HP12c

TOPIC: CALCULATE THE SINKING FUND FACTOR

Problem 2 – Calculate the required periodic payment based on the following information.

Amount to accumulate	\$142,000
Annual interest rate	7.75%
Number of years	11 years
Compounding frequency	Quarterly

Problem Solution – NEXT PAGE

Practice Problems

CATEGORY: HP12c

TOPIC: CALCULATE THE SINKING FUND FACTOR

Problem 2 – Calculate the required periodic payment based on the following information.

Amount to accumulate	\$142,000
Annual interest rate	7.75%
Number of years	11 years
Compounding frequency	Quarterly

Problem Solution

KEYSTROKES	DISPLAY	COMMENTS
f CLX	0.00	Clear calculator registers
142000 FV	142,000.00	Enter the amount to be accumulated in the FV register
7.75 ENTER	7.75	Enter the annual interest rate
4 ÷ i	1.94	Divides annual interest rate by 4 and enters periodic (quarterly) interest rate into i register
11 ENTER	11.00	Enters number of years
4 x n	44.00	Converts number of years to number of quarters and places value in to n register
PMT	-204.49	Calculates periodic (quarterly) payment

Practice Problems

CATEGORY: HP12c

TOPIC: CALCULATE THE SINKING FUND FACTOR

Problem 3 – Calculate the required periodic payment based on the following information.

Amount to accumulate	\$1,025,000
Annual interest rate	3.5%
Number of years	15 years
Compounding frequency	Annually

Problem Solution – NEXT PAGE

Practice Problems

CATEGORY: HP12c

TOPIC: CALCULATE THE SINKING FUND FACTOR

Problem 3 – Calculate the required periodic payment based on the following information.

Amount to accumulate	\$1,025,000
Annual interest rate	3.5%
Number of years	15 years
Compounding frequency	Annually

Problem Solution

KEYSTROKES		DISPLAY	COMMENTS
	f CLX	0.00	Clear calculator registers
1025000	FV	1,025,000.00	Enter the amount to be accumulated in the FV register
3.5	i	3.50	Enter the annual interest rate
14	n	14.00	Enter the number of years (number of payments)
	PMT	-53,120.70	Calculates periodic (annual) payment