Practice Problems

CATEGORY: HP12c

TOPIC: CALCULATE MORTGAGE PAYMENT AND AMOUNT OF BALLOON PAYMENT (BALANCE DUE)

Problem 1 – Calculate the periodic mortgage payment and the amount of the balloon payment due given the following terms.

Mortgage amount	$400,000
Annual interest rate for mortgage	7.25%
Loan term	30 years
Amortization/compounding	Monthly
Balloon payment due	5 years

Problem Solution – NEXT PAGE

Practice Problems

APPRAISAL TOOLBOX
EDUCATIONAL RESOURCES, ROBUST TOOLS & MORE

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Problem Solution

KEYSTROKES	DISPLAY	COMMENTS
f CLX	0.00	*Clear calculator registers*
400000 PV	400,000.00	*Enters loan amount into PV register*
30 g n	360.00	*Multiplies number of years by 12 and enters number of periods (months) into n register*
7.25 g i	0.60	*Divides annual interest rate by 12 and enters periodic interest rate into i register*
PMT	-2,728.71	*Calculates periodic (monthly) payment*
5 g n	60.00	*Calculates balloon period (60 months) and enters into n register*
FV	-377,515.11	*Calculates amout of loan balance due (balloon payment) at end of 5 years*

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TOPIC: CALCULATE MORTGAGE PAYMENT AND AMOUNT OF BALLOON PAYMENT (BALANCE DUE)

Problem 2 – Calculate the periodic mortgage payment and the amount of the balloon payment due given the following terms.

Mortgage amount	$850,000
Annual interest rate for mortgage	6.4%
Loan term	20 years
Amortization/compounding	Quarterly
Balloon payment due	5 years

Problem Solution – NEXT PAGE

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Problem 2 – Calculate the periodic mortgage payment and the amount of the balloon payment due given the following terms.

Mortgage amount	$850,000
Annual interest rate for mortgage	6.4%
Loan term	20 years
Amortization/compounding	Quarterly
Balloon payment due	5 years

Problem Solution

KEYSTROKES			DISPLAY	COMMENTS
	f	CLX	0.00	*Clear calculator registers*
850000	PV		850,000.00	*Enters loan amount into PV register*
6.4	ENTER		6.40	*Enters annual interest rate*
4	÷	i	1.60	*Divides annual interest rate by 4 and enters periodic (quarterly) interest rate into i register*
20	ENTER		20.00	*Enters number of years*
4	x	n	80.00	*Converts number of years to number of quarters and places value in to n register*
	PMT		-18,911.71	*Calculates periodic (quarterly) payment*
5	ENTER		5.00	*Enters number of years of holding perioed (when balloon payment is due)*
4	x	n	20.00	*Converts number of years to number of quarters for balloon pmt and places value in to n register*
	FV		-725,957.08	*Calculates amout of loan balance due (balloon payment) at end of 5 years*

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TOPIC: CALCULATE MORTGAGE PAYMENT AND AMOUNT OF BALLOON PAYMENT (BALANCE DUE)

Problem 3 – Calculate the periodic mortgage payment and the amount of the balloon payment due given the following terms.

Mortgage amount	$1,500,000
Annual interest rate for mortgage	5.9%
Loan term	20 years
Amortization/compounding	Semi-Monthly
Balloon payment due	7 years

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TOPIC: CALCULATE MORTGAGE PAYMENT AND AMOUNT OF BALLOON PAYMENT (BALANCE DUE)

Problem 3 – Calculate the periodic mortgage payment and the amount of the balloon payment due given the following terms.

Mortgage amount	$1,500,000
Annual interest rate for mortgage	5.9%
Loan term	20 years
Amortization/compounding	Semi-Monthly
Balloon payment due	7 years

Problem Solution

KEYSTROKES	DISPLAY	COMMENTS
f CLX	0.00	Clear calculator registers
1500000 PV	1,500,000.00	Enters loan amount into PV register
5.9 ENTER	5.90	Enters annual interest rate
24 ÷ i	0.25	Divides annual interest rate by 24 and enters periodic (semi-monthly) interest rate into i register
20 ENTER	20.00	Enters number of years
24 x n	480.00	Converts number of years to number of number of periods and places value in to n register
PMT	-5,326.63	Calculates periodic (semi-monthly) payment
7 ENTER	7.00	Enters number of years of holding perioed (when balloon payment is due)
24 x n	168.00	Converts number of years to number of periods and places value in to n register
FV	-1,159,563.17	Calculates amout of loan balance due (balloon payment) at end of 7 years

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TOPIC: CALCULATE MORTGAGE PAYMENT AND

AMOUNT OF BALLOON PAYMENT (BALANCE DUE)

Problem 4 – Calculate the periodic mortgage payment and the amount of the balloon payment due given the following terms.

Mortgage amount	$350,000
Annual interest rate for mortgage	4.75%
Loan term	15 years
Amortization/compounding	Annually
Balloon payment due	6 years

Problem Solution – NEXT PAGE

Practice Problems

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TOPIC: CALCULATE MORTGAGE PAYMENT AND AMOUNT OF BALLOON PAYMENT (BALANCE DUE)

Problem 4 – Calculate the periodic mortgage payment and the amount of the balloon payment due given the following terms.

Mortgage amount	$350,000
Annual interest rate for mortgage	4.75%
Loan term	15 years
Amortization/compounding	Annually
Balloon payment due	6 years

Problem Solution

KEYSTROKES			DISPLAY	COMMENTS
	f	CLX	0.00	*Clear calculator registers*
350000	PV		350,000.00	*Enters loan amount into PV register*
4.75	i		4.75	*Enters annual interest rate*
15	n		0.25	*Enters number of periods (years) into n register*
	PMT		-33,152.40	*Calculates periodic (annual) payment*
6	ENTER		6.00	*Enters number of years of holding perioed (when balloon payment is due)*
	FV		-238,286.97	*Calculates amout of loan balance due (balloon payment) at end of 6 years*