

Practice Problems

CATEGORY: HP12c

**TOPIC: CALCULATE THE CASH-EQUIVALENT SALE
PRICE BASED ON SELLER FINANCING**

Problem 1 – Calculate the cash-equivalent sale price due to below-market financing provided by the seller.

Sale price	\$585,000
Loan to value ratio	80%
Loan term	30 years
Amortization/compounding	Monthly
Seller's interest rate	6%
Market interest rate	7.25%

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Problem Solution

KEYSTROKES		DISPLAY	COMMENTS
	f CLX	0.00	Clear calculator registers
585000	ENTER	585,000.00	Enter sale price
80	% PV	468,000.00	Calculates loan amount and enters into PV register
6	g i	0.50	Calculates periodic (monthly) seller loan rate and inserts into i register
30	g n	360.00	Calculates number of periods for loan (months) and enters into n register
	PMT	-2,805.90	Calculates periodic (monthly) loan payment based on seller's interest rate
7.25	g i	0.60	Calculates periodic (monthly) market interest rate and enters into i register
	PV	411,315.45	Calculates the present value of the mortgage based on market interest rate
585000	ENTER	585,000.00	Enter sale price
20	%	117,000.00	Calculates downpayment (20%) of sale price
	RCL PV +	528,315.45	Recalls value of mortgage (market) and adds to downpayment (cash-equivalent price)

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**TOPIC: CALCULATE THE CASH-EQUIVALENT SALE
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Problem 2 – Calculate the cash-equivalent sale price due to below-market financing provided by the seller.

Sale price	\$317,500
Loan to value ratio	90%
Loan term	20 years
Amortization/compounding	Monthly
Seller's interest rate	4.00%
Market interest rate	5.25%

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TOPIC: CALCULATE THE CASH-EQUIVALENT SALE PRICE BASED ON SELLER FINANCING

Problem 2 – Calculate the cash-equivalent sale price due to below-market financing provided by the seller.

Sale price	\$317,500
Loan to value ratio	90%
Loan term	20 years
Amortization/compounding	Monthly
Seller's interest rate	4.00%
Market interest rate	5.25%

Problem Solution

KEYSTROKES	DISPLAY	COMMENTS
f CLX	0.00	Clear calculator registers
317500 ENTER	317,500.00	Enter sale price
90 % PV	285,750.00	Calculates loan amount and enters into PV register
4 g i	0.33	Calculates periodic (monthly) seller loan rate and inserts into i register
20 g n	240.00	Calculates number of periods for loan (months) and enters into n register
PMT	-1,713.59	Calculates periodic (monthly) loan payment based on seller's interest rate
5.25 g i	0.44	Calculates periodic (monthly) market interest rate and enters into i register
PV	256,971.70	Calculates the present value of the mortgage based on market interest rate
317500 ENTER	317,500.00	Enter sale price
10 %	31,750.00	Calculates downpayment (10%) of sale price
RCL PV +	288,721.70	Recalls value of mortgage (market) and adds to downpayment (cash-equivalent price)

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**TOPIC: CALCULATE THE CASH-EQUIVALENT SALE
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Problem 3 – Calculate the cash-equivalent sale price due to below-market financing provided by the seller.

Sale price	\$1,569,000
Loan to value ratio	75%
Loan term	25 years
Amortization/compounding	Monthly
Seller's interest rate	5.00%
Market interest rate	6.00%

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TOPIC: CALCULATE THE CASH-EQUIVALENT SALE PRICE BASED ON SELLER FINANCING

Problem 3 – Calculate the cash-equivalent sale price due to below-market financing provided by the seller.

Sale price	\$1,569,000
Loan to value ratio	75%
Loan term	25 years
Amortization/compounding	Monthly
Seller's interest rate	5.00%
Market interest rate	6.00%

Problem Solution

KEYSTROKES			DISPLAY	COMMENTS
	f	CLX	0.00	Clear calculator registers
1569000		ENTER	1,569,000.00	Enter sale price
75	%	PV	1,176,750.00	Calculates loan amount and enters into PV register
5	g	i	0.42	Calculates periodic (monthly) seller loan rate and inserts into i register
25	g	n	300.00	Calculates number of periods for loan (months) and enters into n register
		PMT	-6,879.16	Calculates periodic (monthly) loan payment based on seller's interest rate
6	g	i	0.50	Calculates periodic (monthly) market interest rate and enters into i register
		PV	1,067,693.36	Calculates the present value of the mortgage based on market interest rate
1569000		ENTER	1,569,000.00	Enter sale price
25	%		392,250.00	Calculates downpayment (25%) of sale price
	RCL	PV +	1,459,943.36	Recalls value of mortgage (market) and adds to downpayment (cash-equivalent price)

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**TOPIC: CALCULATE THE CASH-EQUIVALENT SALE
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Problem 4 – Calculate the cash-equivalent sale price due to below-market financing provided by the seller.

Sale price	\$625,000
Loan to value ratio	70%
Loan term	30 years
Amortization/compounding	Monthly
Seller's interest rate	4.25%
Market interest rate	5.75%

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TOPIC: CALCULATE THE CASH-EQUIVALENT SALE PRICE BASED ON SELLER FINANCING

Problem 4 – Calculate the cash-equivalent sale price due to below-market financing provided by the seller.

Sale price	\$625,000
Loan to value ratio	70%
Loan term	30 years
Amortization/compounding	Monthly
Seller's interest rate	4.25%
Market interest rate	5.75%

Problem Solution

KEYSTROKES			DISPLAY	COMMENTS
	f	CLX	0.00	Clear calculator registers
625000		ENTER	625,000.00	Enter sale price
70	%	PV	437,500.00	Calculates loan amount and enters into PV register
4.25	g	i	0.35	Calculates periodic (monthly) seller loan rate and inserts into i register
30	g	n	360.00	Calculates number of periods for loan (months) and enters into n register
	PMT		-2,152.24	Calculates periodic (monthly) loan payment based on seller's interest rate
5.75	g	i	0.48	Calculates periodic (monthly) market interest rate and enters into i register
	PV		368,803.48	Calculates the present value of the mortgage based on market interest rate
625000		ENTER	625,000.00	Enter sale price
30	%		187,500.00	Calculates downpayment (30%) of sale price
	RCL	PV +	556,303.48	Recalls value of mortgage (market) and adds to downpayment (cash-equivalent price)