

## Car Loan Practice Problem for Mar 14

### Review of attempt 1

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<b>Started on</b>	Thursday, March 3, 2011, 04:54 PM
<b>Completed on</b>	Sunday, March 13, 2011, 12:45 PM
<b>Time taken</b>	9 days 18 hours
<b>Marks</b>	5/6
<b>Grade</b>	90 out of a maximum of 100 (90%)

1

 Marks:  
0.9/1

Alice is buying a nice new car and will borrow \$24000 for five years at 8% interest, compounded monthly. She will make monthly payments on the car. What will those monthly payments be?

Be sure to round to dollars and cents.

 ✓ .

$R = Pr / (1 - (1+r)^{-n})$ , where  $n = 60$  months,  $P = 24000$  loan,  $r = .08/12 =$  monthly rate, so  $(24000)(.08/12) / (1 - (1+.08/12)^{-60}) = 160 / .32878956... = 486.63$

Correct

Marks for this submission: 1/1. With previous penalties this gives **0.9/1**.

History of Responses:

#	Action	Response	Time	Raw score	Grade
1	Grade	400	12:42:50 on 13/03/11	0	0
2	Grade	486.63	12:43:06 on 13/03/11	1	0.9
3	Close&Grade	486.63	12:43:06 on 13/03/11	1	0.9

2

 Marks:  
0.9/1

What will Alice pay in total for the car?

Be sure to round to dollars and cents.

29197.80 ✓ .

Total paid: payment per month \* number of payments

Correct

Marks for this submission: 1/1. With previous penalties this gives **0.9/1**.

History of Responses:

#	Action	Response	Time	Raw score	Grade
1	Grade	3400	12:43:19 on 13/03/11	0	0
2	Grade	29197.80	12:43:33 on 13/03/11	1	0.9
3	<b>Close&amp;Grade</b>	<b>29197.80</b>	<b>12:43:33 on 13/03/11</b>	<b>1</b>	<b>0.9</b>

3

Marks:  
0.9/1

How much total \$interest will Alice pay?

Be sure to round to dollars and cents.

5197.80 ✓ .

The interest paid is the difference between what she paid in total and the loan amount.

Correct

Marks for this submission: 1/1. With previous penalties this gives **0.9/1**.

History of Responses:

#	Action	Response	Time	Raw score	Grade
1	Grade	3400	12:43:52 on 13/03/11	0	0
2	Grade	5197.80	12:44:05 on 13/03/11	1	0.9
3	<b>Close&amp;Grade</b>	<b>5197.80</b>	<b>12:44:05 on 13/03/11</b>	<b>1</b>	<b>0.9</b>

4

Marks:  
2.7/3

Now let's fill out the first month of the amortization table for this loan.

We know that the payment each month on the \$24000 with a yearly interest rate of 8% will be \$486.63 as we calculated earlier.

What portion of that money will go towards paying \$ interest on the loan for the first month? **What is the monthly interest for the first**

month?

**Correct Answer and Feedback** Close  
Correct answer: 326.63  
Congratulations!

Be sure to round

160.00 ✓ .

What portion of that money will go towards paying off a part of the loan for the first month?

Be sure to round to dollars and cents.

326.63 ✓ .

How much is owed after the first payment?

Be sure to round to dollars and cents.

23673.37 ✓ .

Correct

Marks for this submission: 3/3. With previous penalties this gives 2.7/3.

History of Responses:

#	Action	Response	Time	Raw score	Grade
1	Grade	34, ,	12:44:23 on 13/03/11	0	0
2	Grade	160.00, 326.63, 23673.37	12:44:54 on 13/03/11	3	2.7
3	Close&Grade	160.00, 326.63, 23673.37	12:45:04 on 13/03/11	3	2.7

Finish review

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MAT1010120-15540201110