




Excel Assignment: Buying a Car

One possible way to decide which car to buy is to use a spreadsheet. Create a model similar to the one shown here and compare three different cars of your choosing.

Notes:

1. Please put your name in cell A1.
2. Include pictures of the cars you're interested in.
3. Taxes are estimates using a 7.5% tax rate.
4. Document fees vary with the dealer, and of course are negotiable. They do not have to be the same for all three choices.
5. Use whatever down payment(s) seems realistic to you.
6. The amount to finance is the difference between Total Cost and the Down Payment.
7. The loan interest rate shown here can vary by car. Use whatever value seems realistic to you.
8. Estimates such as gas, oil, and insurance may vary by car.
9. Depreciation here was estimated at a flat 10% per year.
10. The likely actual price was estimated from <http://www.kbb.com/>
11. The registration and other fees were estimated from the following web site:

	A	B	C	D
1		Choice 1	Choice 2	Choice 3
2				
3	Make:	Honda	Toyota	Hyundai
4	Model:	Accord EX-4 door	Camry-4 door	Santa Fe
5	Cylinders:	six	six	six
6	Special features:	leather, nav system	leather, nav system	none
7	MSRP:	26,595.00	\$ 28,940.00	\$ 30,295.00
8	Likely actual price*	26,329.00	26,682.00	28,473.00
9	Tax and Title	1,974.68	2,001.15	2,135.48
10	Document fees:	200.00	200.00	300.00
11	Registration and other fees**	397.00	397.00	464.00
12	Total Cost:	28,900.68	29,280.15	31,372.48
13	Down payment:	3,000.00	3,000.00	3,000.00
14	Financing Information			
15	Amount to finance:	25,900.68	26,280.15	28,372.48
16	Interest rate:	9.00%	9.00%	9.00%
17	Loan term (months)	48	48	48
18	Estimated monthly costs:			
19	Monthly loan payment***	644.54	653.98	706.05
20	Gas and oil:	75.00	80.00	100.00
21	Insurance:	125.00	125.00	135.00
22	Depreciation:	240.84	244.00	261.44
23	Total:	\$1,085.38	\$1,102.98	\$1,202.49
24				
25	Total Costs over 48 months			
26	Down payment:	3,000.00	3,000.00	3,000.00
27	Total loan payments:	30,937.89	31,391.17	33,890.41
28	Total gas and oil:	3,600.00	3,840.00	4,800.00
29	Total insurance:	6,000.00	6,000.00	6,480.00
30	Total depreciation:	11,560.27	11,712.06	12,548.99
31	Grand total:	55,098.16	55,943.23	60,719.40
32	Cost/year:	13,774.54	13,985.81	15,179.85

https://dmvapp.state.nv.us/VR_Estimate/VREstimationInput.aspx

12. The monthly payment was computed from the following formula: $PMT(\text{interest rate}/12, \text{term in months}, \text{amount})$.

Deliverables:

You should hand in two copies of your completed assignment, each on a single page. (Hint: Use page set up from Excel's File menu to scale your outputs.) The first page will be similar the one shown here. The second page should be a page containing your formulas. (Hint: The keys Ctrl + ~ enable you to toggle back and forth between the outputs of your formulas, as shown here, and the formulas themselves.)