

 **BUILDING BLOCKS STUDENT WORKSHEET**

Determining how down payments affect loans

When borrowing money for a big-ticket item (appliances, cars, homes, etc.), making a down payment can reduce the monthly payments for your installment loan.

However, since it's also helpful to have savings, you'll want to weigh the pros and cons of using your savings to make a car down payment. Also, the lender might insist that you make a down payment or give you a better interest rate or shorter loan term based on the size of the down payment.

Instructions

- 1 Read the car-buying scenario.
- 2 Calculate monthly loan payments and total costs using three down payment amounts.
- 3 Analyze the data and decide which option you'd choose.
- 4 Answer the reflection questions.

The car-buying scenario

You're in the market for a quality used car, and you've decided on a great high-end sedan that has just over 20,000 miles and is priced under \$20,000. You've been saving money this year and now have \$5,000 in savings. You're considering whether it's better to use more of your savings to make a bigger down payment on the car so your monthly payments are lower, or whether it's better to have more money in your savings account and pay more each month.

To make an informed choice, you'll calculate the monthly payment and total cost of three options with different down payments.



CALCULATE TOTAL COST AND MONTHLY PAYMENT

	Option 1	Option 2	Option 3
Price of car	\$19,400	\$19,400	\$19,400
Down payment	\$400	\$2,000	\$5,000
Principal (price of the car minus down payment)			
Interest rate	8%	8%	8%
Length of loan (term)	5 yrs (60 mos.)	5 yrs (60 mos.)	5 yrs (60 mos.)
Estimated interest you'd pay ($I = P \times R \times T$)			
Total cost for this car (price of car + interest)			
Estimated monthly payment ($[\text{principal} + \text{interest}] \div \# \text{ months of loan}$)			

Reflection questions

After evaluating your options, write a reflection paragraph indicating which down payment option you would choose. Describe what factors you considered when making your decision.

Compare the total cost for each down payment option. What effect can a larger down payment have on the monthly payment? And on the total cost of the car?

In Option 3, how would the monthly payment and total cost change if the lender gave you a 5% interest rate and four-year (48-month) term because of your larger down payment? Would those changes to the total and monthly costs change the down payment option you choose?