

Obtaining A Vehicle

Watch Video → <https://www.youtube.com/watch?v=kmpXoSgMSho>

THE FIRST DECISION: New or Used?

The advantages of both are compared in the chart below. Keep in mind that although there are more advantages listed on the new side, the pros on the used side are big ones and in many cases can be bigger advantages.

ADVANTAGES		
NEW	VS	USED
<ul style="list-style-type: none"> Made to Order It's Not Used - never been in an accident or mistreated, no wear and tear, etc. Warranty - without paying extra Latest Gizmos Safety - vehicle safety laws force manufacturers to make safer cars Higher Fuel Efficiency and Lower Emissions Financing - better rates are offered because cars have not yet depreciated Maintenance - reduced maintenance at the beginning; sometimes free maintenance is offered for an amount of time or mileage Legwork - once you have chosen the vehicle, the work is done 	<ul style="list-style-type: none"> Price Depreciation - the steepest decline is right away; this has happened by the time a used vehicle is purchased Insurance Rates - generally, the older the car, the better the rate Choice - may be able to get options that are no longer offered by the dealer on new cars 	

Taken from David Gluckman, Car & Driver Magazine, May 2009.

THE SECOND DECISION: Cash or Finance or Lease?

To **FINANCING** a car, a person would take out a loan to pay for the car and then pay the loan back with interest over a specified period of time. When financing a car a down payment must be made.

A car **LEASE** is essentially a long-term rental. The buyer makes a monthly payment for the term of the lease and at the end of the term must return the vehicle to the dealer or buy the vehicle outright by paying a buyout price (which is set when the buyer agrees to the original lease). When leasing a car a down payment must be made.

Limited on km you can drive!!
or get charges.

Example 1

You are going to trade in your 15-year-old car and would like to purchase a new sedan. The cost of the sedan, including all extra charges is \$26 595. The price is subject to HST. 13% in 2014

a. What would the total price of the sedan if you were to purchase it with cash?

$$26595 (0.13) = \$3457.35 \text{ in taxes}$$

$$\therefore \$30052.35 \text{ total}$$

OR shortcut: $26595(1.13)$ to get total right away

b. What would the total price of the sedan if you made a down payment of \$3500 and finance the rest? To finance, you are offered a 4-year loan at 5.9%.

$$P = 30052.35 - 3500$$

$$= 26552.35$$

$$A = P + Prt$$

$$A = 26552.35 + (26552.35)(0.059)(4)$$

$$A = 32818.70$$

$$\therefore \text{Total} = 3500 + 32818.70$$

$$= \$36318.70$$

d. Which option has the lowest cost?

purchasing with cash is best

e. Why would a person choose to finance a car? The monthly charge will be \$665.83.

- not have \$30 000 in cash

f. Why would a person choose to lease a car?

- not have \$30 000 in cash
 - not have \$670/month available to finance

c. What would the total price of the sedan if you lease it for \$329/month plus taxes, for a lease term of 48 months? The total residual value (buyout) of the sedan is \$19 800 at the end of 4 years.

$$\text{with Tax } 329 \times 1.13 = \$371.77$$

x 48 payments

$$= 17844.96$$

+ buyout 19800

$$= \$37644.96$$

to own car after lease.



*Talk about:
How to use units to help
Solve problems
Operating A vehicle

Brainstorm the types of expenses in each category.

FIXED EXPENSES <i>(ownership expenses)</i> are those that remain the same from one month to the next.	VARIABLE EXPENSES <i>(operating expenses)</i> are those that change in amount or frequency.
<ul style="list-style-type: none"> - car payments - insurance - licence fees - registration fees 	<ul style="list-style-type: none"> - fuel - maintenance (oil changes) - repairs - tires

VEHICLE PREVENTATIVE MAINTENANCE GUIDE	Every 5,000 km	Every 10,000 km	Every 25,000 km	Every 50,000 km	Every 75,000 km	Every 100,000 km	Every 125,000 km	Every 150,000 km	Every 175,000 km	Every 200,000 km
LUBRICATION, OIL & FILTER (Every 5,000 KM or 3 Months)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AIR FILTER - INSPECT/REPLACE (Every 5,000 KM)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DRIVE AXLE BOOTS & SEALS (Inspect every 5,000 KM)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BATTERY INSPECTION (Every 5,000 km)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P.C.V. VALVE (Replace as needed / Inspect every 10,000 KM)		✓		✓		✓		✓		✓
BRAKE INSPECTION (Every 10,000 KM)		✓		✓		✓		✓		✓
TIRE ROTATION & INSPECTION (Every 10,000 KM)		✓		✓		✓		✓		✓
TIRE BALANCE (Every 25,000 KM / or every 12 months)			✓	✓	✓	✓	✓	✓	✓	✓
CLEAN & ADJUST REAR BRAKES (As required, every 10,000 KM)		✓		✓		✓		✓		✓
BRAKE SYSTEM FLUID FLUSH (Every 50,000 KM or 2 years)				✓		✓		✓		✓
WIPER BLADES (Replace every 12 months)			✓	✓	✓	✓	✓	✓	✓	✓
WHEEL ALIGNMENT/INSPECTION (Every 25,000 KM / or 12 months)			✓	✓	✓	✓	✓	✓	✓	✓
FUEL FILTER REPLACEMENT (Every 50,000 KM or 2 years)				✓		✓		✓		✓
TRANSMISSION FLUSH (Every 50,000 KM or 2 years)				✓		✓		✓		✓
FUEL INJECTION SERVICE (Engine Decarbonization) (Every 25,000 KM or 12 months)			✓	✓	✓	✓	✓	✓	✓	✓
MAINTENANCE TUNE-UP (As required)						✓				✓
POWER STEERING FLUSH SERVICE (Every 25,000 KM or 12 months)			✓	✓	✓	✓	✓	✓	✓	✓
AIR INTAKE SERVICE (Every 25,000 KM or 12 months)			✓	✓	✓	✓	✓	✓	✓	✓
COOLANT SYSTEM FLUSH (Every 50,000 KM or 2 years)				✓		✓		✓		✓
REPLACE BELTS & HOSES (Every 50,000 KM or 3 years)				✓		✓		✓		✓
TIMING BELT (Every 100,000 KM / most vehicles)						✓				✓
DRIVE CLEAN (Emission testing every 2 years)				✓		✓		✓		✓
SHOCKS & STRUTS (Inspect every 80 000 km as required)					✓			✓		

MBF 3C1

Name: _____

CAR INSURANCE IS MANDATORY IN ONTARIO.

A **deductible** is the amount of an insurance claim that you must pay.

anything over this amount of insurance covers

Collision coverage pays for losses caused when an insured car is involved in a collision with another object, including another car, or rolls over.

Comprehensive coverage pays for losses, other than those covered by collision or upset, such as falling or flying objects and vandalism

What factors can reduce insurance costs?

- age of car - *older*
- make of car - *not sporty*
- driving record - *no tickets / accidents*
- drivers education
- age of driver - *older*
- sex of driver - *female (when young)*

Car insurance can be paid with **one payment** or **instalments** (which could be quarterly, monthly, etc.).

Example 1

Ralf is 19 and single, and he owns a 7-year-old mid-sized car. He called several insurance agents and the lowest quote he received was \$2620/year. There are two payment options: he can pay the insurance premium in full once a year, or he can make monthly payments of \$230.

- a. Calculate the annual cost if he chooses monthly instalments.

$$230 \times 12 = \$2760$$

- b. Calculate the difference between the two payment options.

$$2760 - 2620 = 140$$

- c. Suggest reasons why Ralf might choose each option.

*- per year is best since less
- per month is spread out
not a big chunk at once.*



FUEL CONSUMPTION is the amount (in litres) of fuel that a car uses to travel 100 km.

Example 2

Darryl's truck has a 76-L fuel tank and a fuel efficiency rating of 11.8 L/100 km.

- a. What does the fuel efficiency rating on Darryl's truck mean?

need 11.8L to drive 100km

- b. How far can Darryl's truck travel on one tank of fuel?

644 km

- c. How much fuel would his truck use on a 450 km trip?

$$450 \text{ km} \times \frac{11.8 \text{ L}}{100 \text{ km}} = 53.1 \text{ L}$$

Example 3

Find the total cost, prior to HST, of servicing a vehicle that requires 2 headlights at \$28.75 each, an exhaust pipe at \$130 and a muffler and tail pipe at \$55.50. the time required for servicing the vehicle is 1.5 hours. The rate the service station charges for labour is \$65/hour.

$$\begin{array}{r}
 2 \times 28.75 \\
 130 \\
 55.50 \\
 1.5 \times (65) \\
 \hline
 = \$340.50
 \end{array}$$

