

Driver's Licence and Fines



Lesson 14

Lesson Fourteen Concepts

- G licence criteria
- G licence fee structure
- Motor vehicle demerit point system and allocation
- Speeding fine structure and surcharge

Ontario Driver's Licence

As of April 1, 1994, all new drivers applying for their first car or motorcycle licence enter Ontario's Graduated Licensing System (GLS). Graduated licensing lets new drivers get driving experience and skills gradually. The two-step licensing process takes at least 20 months to complete.

To apply for a licence, you must be at least 16 years old and pass a vision test and a test of your knowledge of the rules of the road and traffic signs. After you pass these tests, you will get a Class G1 or M1 licence and a driver information package for new drivers. You must pass two road tests to become fully licensed.

New drivers earn full driving privileges in two stages and have five years to complete the program (G1, G2 or M2) and graduate to a full licence (Class G or M).

Class G1

New drivers of passenger vehicles learn to drive with six important conditions with a G1 licence. A new driver must hold a G1 licence for a minimum of 12 months before attempting the G1 road test. This time can be reduced to eight months if you successfully complete an approved driver education course. Drivers earn more privileges after passing their G1 road test.

As a G1 driver, you are required to:

- maintain a zero blood alcohol level while driving;
- be accompanied by a fully licensed driver, who has at least four years driving experience, and a blood alcohol level of less than .05 per cent, in case he/she needs to take over the wheel;
- ensure the accompanying driver is the only other person in the front seat;
- ensure the number of passengers in the vehicle is limited to the number of working seat belts;
- refrain from driving on Ontario's "400-series" highways or on high speed expressways such as the Queen Elizabeth Way, Don Valley Parkway, Gardiner Expressway, E.C. Row Expressway and the Conestoga Parkway;
- refrain from driving between midnight and 5:00 a.m.

Note: If your accompanying driver is a driving instructor licensed in Ontario, you may drive on any road.

Class G2

New drivers must hold a G2 licence for a minimum of 12 months before they can attempt the G2 road test. At this level, you have more privileges because of your driving experience. You may drive without an accompanying driver on all Ontario roads anytime. However, you are still required to:

- maintain a zero blood alcohol level while driving;
- ensure the number of passengers in the vehicle is limited to the number of working seat belts.

Licence Fees	
G Class Licence	Cost
G1 Licence - cost includes knowledge test, G1 road test and five year licence	\$125.00
Knowledge Test	\$10.00
Class G1 Road Test	\$40.00
Five Year Licence *This amount includes the portion of the fee required to be paid by the licence applicant into the Motor Vehicle Accident Claims Fund under the Motor Vehicle Accident Claims Act. Currently, this amount is \$15.00 for applicants receiving a 5 year licence.	\$75.00*
Class G2 Road Test	\$75.00

Demerit Point System in Ontario

Drivers convicted of certain driving-related offences have demerit points recorded on their records. It is a common misconception that drivers "lose" points due to convictions for certain traffic offences. In fact, a driver begins with zero demerit points and accumulates demerit points for convictions. Demerit points stay on your record for two years from the offence date. If you collect enough points, you can lose your driver's licence. On the next page is a table outlining the demerit point penalties for driving offences:

- As a fully licensed driver, if you get six demerit points, you will be sent a warning letter.
- At nine points, you may have to go to an interview to discuss your record and give reasons why your licence should not be suspended. If you don't attend, your licence may be suspended.
- At 15 or more points, your licence will be suspended for 30 days from the date you surrender it to the Ministry of Transportation for the first

suspension. You can lose your licence for up to two years if you fail to surrender your licence. A driver's licence may be surrendered at any Driver & Vehicle Licence Issuing Office, Ministry of Transportation Queen's Park Driver and Vehicle Licence Issuing Office, or mailed to:

Ministry of Transportation
 Driver Improvement Office
 Building A, Main Floor
 2680 Keele Street
 Downsview, ON M3M 3E6

- DriveTest centres do not accept surrendered licences for suspension purposes.
- After the suspension you may be required to complete a driver re-examination (vision, knowledge and road tests), the number of points on your record will be reduced to seven. Any extra points could again bring you to the interview level. If you reach 15 points again, your licence will be suspended for six months.

CHARGE

DEMERIT POINTS

Failing to remain at the scene of an accident	7 points
Speeding-exceeding limit by 50 km/h or more	6 points
Speeding-exceeding limit by 30 km/h but no more than 49 km/h	4 points
Speeding-exceeding limit by more than 15 km/h but no more than 29 km/h	3 points
Speeding-exceeding limit by up to 15 km/h	0 points
Careless driving	6 points
Racing	6 points
Failing to stop at railroad crossing-school bus	5 points
Failing to stop for a peace officer	7 points
Following too closely	4 points
Failing to stop for a school bus	6 points
Failing to report an accident	3 points
Improper passing	3 points
Driving on wrong side of the road	3 points
Driving the wrong way on a one-way highway	3 points
Impeding passing vehicle	3 points
Failing to yield right-of-way to vehicle or pedestrian	3 points
Failing to stop as directed by traffic control devices or as otherwise required	3 points
Driver fail to wear seat belt	2 points
Passenger fail to wear seat belt	2 points
Traffic lane violation	2 points
Failing to signal	2 points
Improper turns	2 points

SPEEDING PENALTIES

Kilometres over Limit	Set Fines (Per Kilometre)
1- 19	\$ 2.50
20-34	\$ 3.75
35-49	\$ 6.00
50 +	No out of court settlement

SPEEDING PENALTIES - Community Safety Zone

Kilometres over Limit	Set Fines (Per Kilometre)
1- 19	\$ 5.00
20-34	\$ 7.50
35-49	No out of court settlement

A victim's surcharge is added to all fines as per the following chart:

For Set Fine of	Add Surcharge
0 - \$50	\$10.00
\$51 - \$75	\$15.00
\$76 - \$100	\$20.00
\$101 - \$150	\$25.00
\$151 - \$200	\$35.00
\$201 - \$250	\$50.00
\$251 - \$300	\$60.00
\$301 - \$350	\$75.00
\$351 - \$400	\$85.00
\$401 - \$450	\$95.00
\$451 - \$500	\$110.00
\$501 - \$1,000	\$125.00
\$1,000 and over	25% of fine imposed

Example 1

What is the cost of going 35 km over the speed limit and how many demerit points are charged?

Solution**SPEEDING PENALTIES**

Kilometres over Limit	Set Fines (Per Kilometre)
1- 19	\$ 2.50
20-34	\$ 3.75
35-49	\$ 6.00
50 +	No out of court settlement

$$\begin{aligned} \text{Fine} &= 35 \times 6.00 \\ &= \$210 \end{aligned}$$

Total Fine = Fine + surcharge

For Set Fine of	Add Surcharge
0 - \$50	\$10.00
\$51 - \$75	\$15.00
\$76 - \$100	\$20.00
\$101 - \$150	\$25.00
\$151 - \$200	\$35.00
\$201 - \$250	\$50.00

$$\begin{aligned} \text{Total fine} &= 210 + 50 \\ &= \$260.00 \end{aligned}$$

Speeding-exceeding limit by 30 km/h but no more than 49 km/h	4 points
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Support Questions



1. Calculate the cost of each of the speeding fines and the number of demerits.
 - a. Exceeding the speed limit by 22 km.
 - b. Exceeding the speed limit by 14 km.

 - c. Exceeding the speed limit by 38 km.
 - d. Exceeding the speed limit by 70 km.

2. Calculate the cost of each of the speeding fines.
 - a. Exceeding the speed limit by 25 km in a community safety zone.

 - b. Exceeding the speed limit by 31 km in a community safety zone.

3. If charged with going 80 km/h in a 65 km/h zone, what fine must you pay? How many demerit points would you receive?

4. What is the cost of the G1 and G2 road tests?



Key Question #14

1. Calculate the cost of each of the speeding fines and the number of demerits.

- a. Exceeding the speed limit by 18 km. b. Exceeding the speed limit by 49 km.

2. Calculate the cost of each of the speeding fines.

- a. Exceeding the speed limit by 34 km in a community safety zone.

- b. Exceeding the speed limit by 23 km in a community safety zone.

10. Describe what happens to a fully licensed driver if they get 15 demerit points.

11. What might a driver be required to do if they have their licence suspended?

12. List the 6 important conditions with a G1 licence.

Fuel Consumption



Lesson 15

Lesson Fifteen Concepts

- Calculating the amount of fuel needed for a vehicle
- Calculating the cost of fuel needed
- Calculating how much fuel can be purchase with a fixed amount of money
- Comparing highway fuel efficiency to city fuel efficiency
-

Fuel Efficiency: A key part of operating any vehicle is the cost of gasoline. As a general rule the smaller the vehicle, the better the kilometres per Litre of gasoline. In the United States fuel efficiency of a vehicle is measured in MPG (miles per gallon). In Canada, fuel efficiency is measured in L / 100 km.

Here are some examples of 2005 vehicles and their fuel efficiency.

MANUFACTURER MODEL	L./100km	
	CITY	HIGHWAY
PONTIAC VIBE	7.9	5.9
ACURA RSX	8.6	6.4
TOYOTA CELICA	8.9	6.5
HONDA ACCORD	9.0	6.4
CHEVROLET AVEO	9.0	6.4
PONTIAC WAVE	9.0	6.4
FORD FOCUS WAGON	9.2	6.2
PONTIAC PURSUIT	9.5	6.1
VOLKSWAGEN JETTA WAGON	9.8	7.1
VOLKSWAGEN NEW BEETLE	9.8	7.1
HYUNDAI TIBURON	10.0	7.1
NISSAN ALTIMA	10.0	7.3
CHEVROLET MALIBU	10.5	6.7

When using L/100 km, the lower the number the better the fuel efficiency.

Example 1: How many litres of gas are needed to travel 525 km if the vehicle gets uses 6.4 L/100 km (highway)?

Solution: Find how much of a litre is needed to travel 1 km then multiply that value by the number of kilometres traveled.

$$\frac{6.4\text{L}}{100\text{km}} \leftrightarrow \frac{x}{1\text{km}} \quad \leftarrow \text{Use cross multiplication.}$$

$$(6.4)(1) = (100)(x)$$

$$6.4 = 100x$$

$$\frac{6.4}{100} = \frac{100x}{100}$$

$$0.064 = x$$

So 1km uses 0.064 L of gasoline.

$$\begin{aligned} \text{Total Gas Used} &= 525 \times 0.064 && \text{Distance being traveled.} \\ &= 33.6 \text{ L} \end{aligned}$$

Example 2: How many litres of gas are needed to travel 817 km if the vehicle gets uses 9.3 L/ 100 km (highway)?

Solution

$$\frac{9.3\text{L}}{100\text{km}} \leftrightarrow \frac{x}{1\text{km}} \quad \leftarrow \text{Use cross multiplication.}$$

$$(9.3)(1) = (100)(x)$$

$$9.3 = 100x$$

$$\frac{9.3}{100} = \frac{100x}{100}$$

$$0.093 = x$$

So 1km uses 0.093L of gasoline.

$$\begin{aligned} \text{Total Gas Used} &= 817 \times 0.093 && \text{Distance being traveled.} \\ &= 75.98 \text{ L} \end{aligned}$$



Support Questions

1. Calculate the amount of fuel that is needed.
 - a. Traveling 418 km with a vehicle that uses 7.6 L/100 km
 - b. Traveling 67 km with a vehicle that uses 11.4 L/100 km

Cost of Fuel

Example 1: Calculate how much it would cost to use 34.5 L of gasoline that cost 92.4¢/L

Solution: Fuel cost = 34.5×0.924
= \$31.88

Example 2: How many litres of gas can be purchased with \$25.00 if gas cost 92.4¢/L?

Solution

$$0.924x = 25$$

"x" represents the number of litres

$$\frac{0.924x}{0.924} = \frac{25}{0.924}$$

Divide both sides by the cost of the gas.

$$x = \frac{25}{0.924}$$

$$x = 27.06 \text{ L}$$



Support Questions

1. Calculate the cost of fuel.

a. 45 L at 87.9¢/L

b. 61 L at 73.5¢/L

c. 90 L at 92.7¢/L

2. How much gas can be purchased with each of the dollar amounts given.
(Assume 78.2¢/L)

a. \$5.00

b. \$32.00

c. \$45.00



Key Question #15

1. Calculate the amount of fuel that is needed.

a. Traveling 615 km with a vehicle
that uses 5.9 L/100 km

b. Traveling 1236 km with a vehicle
that uses 9.8 L/100 km

2. Calculate the cost of fuel.

a. 40 L at 65.7¢/L

b. 67 L at 91.1¢/L

c. 35 L at 82.9¢/L

3. How much gas can be purchased with each of the dollar amounts given.

(Assume 84.6¢/L)

a. \$10.00

b. \$25.00

c. \$80.00

4. Using the table given earlier in this section and using highway readings, how much fuel will the 2005 Pontiac Vibe use to drive 400 km?



5. Using the table given earlier in this section and using highway readings, how much will it cost the 2005 Acura RSX to travel 600 km if fuel cost 89.9¢/L ?



6. What is the difference in cost of driving the 2005 Nissan Altima 200 highway km versus 200 city km? Assume fuel costs 91.7¢/ L.



7. Fuel efficiency is one factor that helps people decide on what type of vehicle to purchase or lease. List 3 other factors that might influence what type of car a person may purchase or lease?
8. Why do you think city driving is less fuel efficient than highway driving?

Vehicle Costs



Lesson 16

Lesson Sixteen Concepts

- Calculating annual cost of a vehicle
- Identifying common vehicle expenses
- Calculating cost per km of maintaining a vehicle
- Calculating cost of an item including PST and GST

Car Expense

To operate a car there are numerous expense associated. Here is a list of just few of the main expenses individuals experience with their vehicles.

- Gas
- Oil
- Oil changes with oil filter
- Wiper fluid
- Tires
- Air filter
- Insurance
- Car payments

Example 1

The following are car expenses that Jill experienced for 1 year.

\$41.56 oil
\$1664 gas
\$513.24 new tires
\$31.00 wiper fluid
\$17.00 air filter
\$917.63 insurance
\$3804 car payments

What amount did it cost her per month?

Solution

$$\begin{aligned}\text{Yearly expenses} &= 41.45 + 1664 + 513.24 + 31 + 17 + 917.63 + 3804 \\ &= \$6988.43\end{aligned}$$

$$\begin{aligned}\text{Monthly cost} &= \text{yearly cost} \div 12 \\ &= 6988.43 \div 12 \\ &= \$582.37\end{aligned}$$

Example 2

Suppose Jill drove 28349 km in that one year. How much did it cost her per kilometre to run her car?

Solution:

$$\begin{aligned}\text{Cost per km} &= \text{yearly cost} \div \text{number of km per year} \\ &= 6988.43 \div 28\,349 \\ &= 24.7\text{¢/ km}\end{aligned}$$

**Support Questions**

1. The following are car expenses that Kristen experienced for 1 year.

\$41.56 oil
\$175/ month gas
\$48.00 wiper fluid
\$12.00 air filter
\$1129.43 insurance
\$327.18/ monthly car payment
Total km driven in one year: 21395 km

- a. How much did Kristen spend on her car in the 1 year?

- b. How much did it cost her per month to run her car?

- c. What is the per km cost of running her car?

2. The following are car expenses that Don experienced for 1 year.

\$87.81 oil changes
\$158.25/ month gas
\$827.15 new tires
\$1129.43 insurance
\$571.38/ monthly car payment
Total km driven in one year: 24843 km

a. How much did Don spend on his car in the 1 year?

b. How much did it cost him per month to run his car?


c. What is the per km cost of running his car?

3. Lester needs a new muffler installed on his vehicle. He purchases a new exhaust system for his car that cost \$487.26.

a. How much is this exhaust system per month if it lasts for 10 years?

b. How much is this exhaust system per km if he drives 192000 km with it?

4. Cliff needs four new tires for his vehicle.



Uniroyal Tiger Paw Touring HR

Designed for sedans and mini-vans, the Tiger Paw Touring HR was developed to deliver excellent traction and handling in all seasons, uncompromising comfort with a quiet ride.

Free with every tire purchase at Canadian Tire: New rubber valve, Road Hazard warranty, Installation-(Balancing not included), Rotation every 10,000km, Brake and shock inspection every 10,000km, and free flat repairs.

- Large shoulder tread blocks hug the road for stability and high-performance handling
- DuraShield construction ensures a smooth, quiet ride
- 90,000km performance rating
- H-speed rated to 210km/h

Product#	Style	Regular Price	Sale
04-2858-0	P185/60R14 82H	\$97.99	\$73.49

a. How much will 4 new tires at the sale price cost him including GST and PST?

b. How much are these tires per month if he keeps them for 3 years?

c. How much are these tires per km if he drives 57000 km on them?

**Key Question #16**

1. The following are car expenses that Elaine experienced for 1 year.

\$48.92 oil \$163/ month gas \$28.00 wiper fluid \$74.00 licence plate fee
\$89.24/ month insurance \$407.74/ monthly car payment
Total km driven in one year: 23839 km

- a. How much did Elaine spend on her car in the 1 year?

- b. How much did it cost her per month to run her car?

- c. What is the per km cost of running her car?

2. The following are car expenses that Noah experienced for 1 year.

\$110.28 oil changes \$141.18/ month gas \$683.27 new tires \$103.00 brake pads
\$125.72/ month insurance \$368.91/ monthly car payment \$74.00 licence plate fee
Total km driven in one year: 20361 km

- a. How much did Noah spend on his car in the 1 year?

- b. How much did it cost him per month to run his car?

- c. What is the per km cost of running his car?

3. Alicia needs new brake pads for her car.

The Quiet Revolution In Braking Technology

MONROE BRAKES
Premium Brake Pads

After 75 years in the automotive business, Monroe now brings the latest in dependable brake technology

- Engineered for long life and optimal stopping power
- Stainless-steel shim technology for quiet braking
- Vehicle-specific friction formulations to match the original equipment
- Includes abutment hardware kit (where applicable), lubricant, installation guide and serialized warranty card

Only at Canadian Tire

STEERING SAFETY TRIANGLE STOPPING STABILITY

3 YEARS or 60,000km WARRANTY

LIFETIME WARRANTY
when installed at your Auto Centre

Set of 4 59.99
16-1500X (only in stores)

a. How much will the brake pads cost her including GST and PST?

b. How much are these brake pads per month if she keeps them for 3 years?

c. How much are these brake pads per km if she drives 63000 km on them?

4. Noah gets his car's oil changed every 3 months. After taxes the total comes to \$27.94.

a. How much does he spend annually on oil changes? b. How much does this cost per month?

c. If Noah drives 25420 km in one year how much does the oil change cost him per km?

New and Used Vehicles



Lesson 17

Lesson Seventeen Concepts

- Understanding additional costs associated with new and used vehicles
- Calculating depreciated value of vehicles
- Calculating taxes associated with vehicle purchases

New Cars

New cars have numerous costs in addition to the “sticker” or base price. Some such extra costs are as follows.

- Delivery Freight Pre-delivery expense Pre-delivery inspection
- Administration fee Dealer preparation

There is a fuel consumption tax for all new cars. If the car also has air conditioning there is a \$100 federal tax. PST and GST are also charged to the total price of the vehicle.

The dealer also charges a fuel charge because they have put some gas in the tank of the purchased vehicle. The dealer also charges a licence fee because they install the plates on the new vehicle.

Example 1: Noah is buying a new car. The car’s total purchase price includes

\$21499 base price
 \$750 delivery charge
 \$100 federal air conditioner tax
 \$75 fuel consumption tax
 PST (8%) and GST (6%)
 \$20 licence fee
 \$30 fuel

What is the total purchase price of this new car?

Solution

Price before taxes = base price + delivery charge + air tax + fuel tax
 $= 21499 + 750 + 100 + 75$
 $= \$22424$

Price including taxes = 22424×1.14
 $= \$25563.36$

Price including licence and fuel = $25\,563.36 + 20 + 30$
 $= \$25\,613.36$



Support Questions

1. Calculate the total purchase price for the car given below:

\$14 999 base price \$1000 delivery charge \$100 federal air conditioner tax
 \$75 fuel consumption tax PST (8%) and GST (6%) \$20 licence fee \$25 fuel

2. The 2005 Ford Freestyle base price is given below:

2005 Freestyle SE
 Redfire Clearcoat Metallic



\$500 delivery charge \$100 federal air conditioner tax \$75 fuel consumption tax
 PST (8%) and GST (6%) \$20 licence fee \$40 fuel

- a. What is the total purchase price for the Ford Freestyle? b. How much more is the total price than the base price?



Support Questions

3. The 2005 Ford Mustang GT Convertible base price is given below:

\$750 delivery charge	\$34500 base price	\$100 federal air conditioner tax
\$75 fuel consumption tax	\$90 administration fee	PST (8%) and GST (6%)
\$20 licence fee	\$30 fuel	

a. What is the total purchase price for the Ford Mustang?

b. How much more is the total price than the base price?

Depreciation: North American made vehicle in general depreciate about 50% in three years.

Example 1: What is Noah's car worth one year later if it depreciates 20% in the first year?

Solution: Value of car in one year = base value \times (1 – decimal form of depreciation %)
 $= 21\,499 \times (1 - 0.20)$
 $= 21\,499 \times 0.80$
 $= \$17\,199.20$

Support Questions

4. Determine the depreciation value of each car.

a. base price \$18 250,
depreciates 20% in one year

b. base price \$33 999,
depreciates 35% in two years

Used Cars: Used cars also have numerous costs in addition to asking price. Some such extra costs are as follows.

- Safety Standards Certificate (certified)
- Drive Clean emissions test (e-tested)
- Extended warranty
- PST
- GST (not on private sales)

Example 1: Brianna, is going to buy a used vehicle from an auto dealer.

- The price including certification and e-testing is \$9500
- The licence fee is \$20 and the fuel fee is \$25
- There is a 3 month extended warranty for 1 year or 20 000 km for \$1000 plus PST and GST

What is the total purchase price of the care with the warranty?

Solution: Price before taxes = car + warranty
 $= 9\,500 + 1000$
 $= \$10500$

Price including GST and PST = 10500×1.14
 $= \$11970$

Total purchase price = Price with taxes + licence and fuel fees
 $= 11970 + 20 + 25$
 $= \$12015$

Example 2

Kristen buys a used car privately. The car price is \$8000 and not included in this price is:

- Certification \$100.00 emission-test \$37.50
- PST and GST on both Certification and emission testing
- PST on the price of the car

What is the total purchase price?

Solution: Certification and emission test = $100 + 37.50$
 = \$137.50

PST and GST on certification and emission test = 137.50×1.14
 = \$156.75

Price of car including PST = 8000×1.08
 = \$8640

Total price of the car = $8640 + 156.75$
 = \$8796.75

Support Questions

5. Calculate the total purchase price for the used car sold privately:

- Certification \$75.00, emission-test \$37.50,
- PST and GST on both Certification and emission testing,
- PST on the price of the car, \$4500 sale price

6. What is the total purchase price for the used car given in the advertisement given below?

AUTO TRADER



Year: 2000
Make: PORSCHE
Model: 911
Model Detail: CARRERA 4 CAB
Price: \$72,000
Mileage: 59,000 km
Date: 7/18/2005
Ad Type: Private

CARRERA 4 CABRIOLET **Comment:** Triple black cabriolet, mint cond, 6 spd, heated sport seats, full leather, embossed headrest, alum trim, H&R springs, 18" turbo wheels, Porsche centre cabs, chrome exhaust, tips, hard top, CD changer, clean clean, car. 59,000 km. \$72,000
 Etest and cert included.



Key Question # 17

1. Calculate the total purchase price for the car given below:

\$20 149 base price	\$900 delivery charge	\$100 federal air conditioner tax
\$75 fuel consumption tax	\$125 administration fee	PST (8%) and GST (6%)
\$20 licence fee	\$50 fuel	

2. The 2006 Dodge Magnum price is given below:

2006 Dodge Magnum



PRICING INFORMATION

Base MSRP:	27,995.00
Destination:	1,200.00
A/C Excise Tax:	100.00
Sub Total * plus taxes:	\$29,295.00

\$70 fuel consumption tax PST (8%) and GST (6%) \$20 licence fee \$45 fuel

- a. What is the base price of the 2005 Dodge Magnum? b. What is the total price of the 2005 Dodge Magnum?

- b. How much more that the base price is the total price of the Dodge Magnum?

3. Determine the depreciation value of each car.
 - a. base price \$19 250,
depreciates 25% in one year
 - b. base price \$28 950,
depreciates 30% in two years

4. Calculate the total purchase price for the used car sold privately:
 - Certification \$75.00 emission-test \$37.50
 - PST and GST on both Certification and emission testing
 - PST on the price of the car \$4500 sale price

5. What is the total purchase price for the used car given in the advertisement given below?

Joe's Car Emporium

2001 PONTIAC SUNFIRE GT



VEHICLE INFORMATION:

Year	2001	Price	\$12,995.00
Make	PONTIAC	Mileage	22,760 km
Model	SUNFIRE	Warranty	Yes \$1 200 for 2 years
Model Detail	GT	Manufacturer's Program	GM Optimum Used Vehicle
Exterior Colour	black	Stock #	L31348
Interior Colour	grey	Date	7/18/2005
Transmission	Automatic	Ad Code	CPYGGWV
Engine Size	2.4, 4 cyl.	Web Ad ID	4421970
Fuel Type	Gas	Certified included	
# Doors	2	Etest \$40	

6. Give 2 advantages and 2 disadvantages of buying a used car versus and new car.

7. What is one advantage and one disadvantage of buying a used car from a dealership versus privately?

Leasing Vehicles



Lesson 18

Lesson Eighteen Concepts

- Understanding additional costs associated with leasing vehicles
- Calculating lease payments including taxes
- Calculating excess kilometre surcharges
- Calculating cost of leasing over a fixed term
- Calculating total cost of purchasing after the end of a lease

Leasing Cars

Leasing is as simple as traditional financing but has several advantages. With **traditional financing**, you purchase a car or truck, make a down payment and agree to pay for the vehicle over the life of the finance contract - plus any interest on the loan. These loan agreements usually range between four and five years.

With **leasing**, you pay only the portion of the vehicle's worth that you anticipate using - over the term of the lease - plus any lease charges. By choosing a lease, you can select a convenient 24 or 36-month lease.

At the end of your lease, you have three options after you fulfill all of your lease obligations:

- Return the vehicle and lease a new one, or
- Purchase the vehicle at a predetermined price and keep it, or
- Return the vehicle and walk away

There are various extra fees associated with leasing. Some of these are as follows:

- Security deposit (refundable at end of lease)
- Down payment
- Excess km usage fee
- PST and GST on monthly payments

Example 1

Brianna is going to lease a new car. The conditions of the lease are given below:

- \$4 000 down payment
- \$400 refundable security deposit
- 36 monthly payments of \$374.56
- PST (8%) and GST (6%) on each monthly payment

How much will she pay to use the car for the 3 years?

Solution: Lease payment including PST and GST = 1.14×374.56
= \$427.00

Cost of lease = down payment + 36 lease payments including taxes
= $4000 + (36 \times 427.00)$
= \$19 372

Assuming that Brianna gets his security deposit back, Brianna will pay \$19372 to use the car for three years.

Support Questions

1. Calculate the cost of leasing each of the vehicles described below.

- a. \$3000 down payment \$350 refundable security deposit
48 monthly payments of \$329.99 PST (8%) and GST (6%) on each monthly payment
- b. \$5000 down payment \$500 refundable security deposit
60 monthly payments of \$439.00 PST (8%) and GST (6%) on each monthly payment

Kilometre Usage Surcharge

When leasing a vehicle, the vehicle has a maximum km usage associated.

Example 1: Kristen's 3 year lease allowed her to drive 60000 km with a \$0.20 surcharge on every km over 60000. Over the 3 years she drove 68126 km. What is her surcharge for exceeding the allowable kilometres?

Solution

$$\begin{aligned}\text{Excess km} &= 68126 - 60000 \\ &= 8126 \text{ km}\end{aligned}$$

$$\begin{aligned}\text{Excess surcharge} &= 8126 \times 0.20 \\ &= \$1625.20\end{aligned}$$



Support Questions

2. Calculate the kilometre surcharge on each below.
 - a. Allowable usage: 65 000 km; actual usage 71 342 km. \$0.15/km surcharge
 - b. Allowable usage: 40 000 km; actual usage 48 829 km. \$0.20/km surcharge
 - c. Allowable usage: 60 000 km; actual usage 62 133 km. \$0.10/km surcharge
 - d. Allowable usage: 80 000 km; actual usage 104 237 km. \$0.08/km surcharge
 - e. Allowable usage: 100 000 km; actual usage 129 205 km. \$0.12/km surcharge
3. Calculate the cost of leasing each of the vehicles described below assuming the security deposit was not returned.

\$4500 down payment	\$425 refundable security deposit
36 monthly payments of \$197.99	PST (8%) and GST (6%) on each monthly payment
Allowable usage: 60000 km; actual usage 72492 km. \$0.10/km surcharge	

4. Christopher has decided to purchase his vehicle after the lease ran out. The purchase price of the vehicle is \$7250.00. His previous lease payments were \$379.15 monthly for 3 years not including GST and PST. He originally gave a down payment of \$3500. What is the total purchase price of the vehicle if you include the cost of leasing and that he is paying cash for the purchase of the vehicle?



Key Question # 18

1. Calculate the cost of leasing each of the vehicles described below.

\$3500 down payment

48 monthly payments of \$179.97

\$225 refundable security deposit

PST (8%) and GST (6%) on each monthly payment

2. Calculate the kilometre surcharge on each below.

a. Allowable usage: 45000 km; actual usage 66976 km. \$0.22/km surcharge

b. Allowable usage: 60000 km; actual usage 65173 km. \$0.09/km surcharge

3. Calculate the cost of leasing the vehicle described below assuming the security deposit was not returned.

\$2500 down payment \$400 refundable security deposit
 60 monthly payments of \$324.99 PST (8%) and GST (6%) on each monthly payment
 Allowable usage: 90000 km; actual usage 106584 km. \$0.13/km surcharge

4. Use the following table to answer these questions.

- a. What is the term for both purchasing and leasing the 2005 Mustang?
- b. Why does the N/A appear under the “Buy” column when referring to the kilometres per term?
- c. What is the difference in the monthly payments? (Lease quote does not include taxes.)
- d. What is the total leasing cost for using the car for 4 years?
- e. Which would you choose? Buy or Lease? Explain your choice.

Selected Vehicle : 2005 FORD Mustang 2dr Coupe V6

	BUY	LEASE	COMPARE
		Buy	Lease
MSRP :		\$25,090	\$25,090
Estimated Selling Price :		\$25,090	\$25,090
Down Payment :		\$4,000	\$4,000
Term (in months) :		48	48
Special APR :		5.9%	9.9%
Rebate :		N/A	\$0
Estimated Net Selling Price :		\$21,090	\$21,090
Kilometers per term :		N/A	100,000
Estimated Monthly Payment :		\$494	\$364
<i>Low rates and rebates good through 8/1/2005</i>			
<i>All prices quoted are the Manufacturer's Suggested Retail Prices.</i>			

Travelling Distances



Lesson 19

Lesson Nineteen Concepts

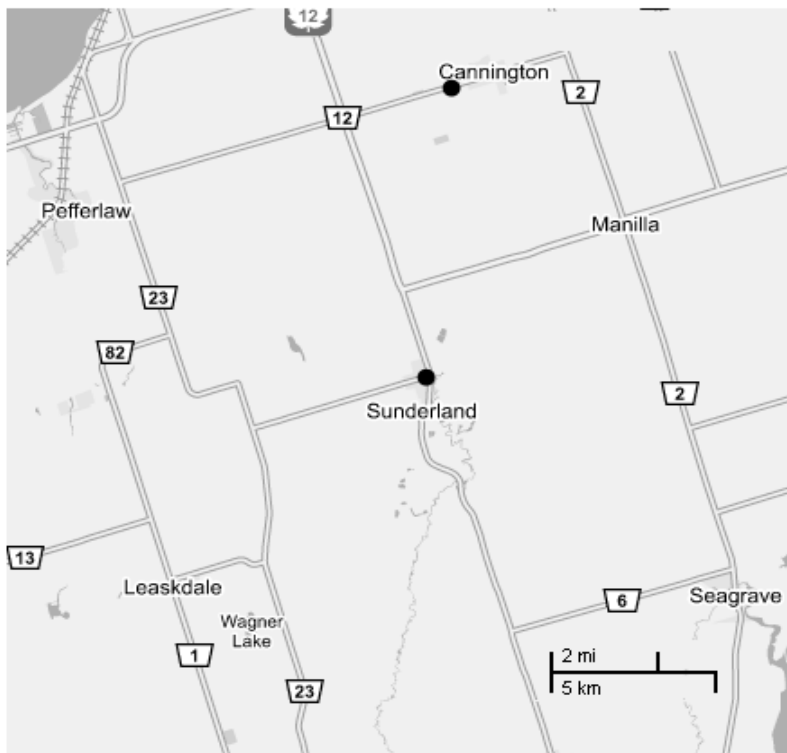
- Using ratios to find an unknown
- Measuring in millimetres
- Estimating distance
- Using a scale on a map to help calculate distance

Estimating Distances on Maps

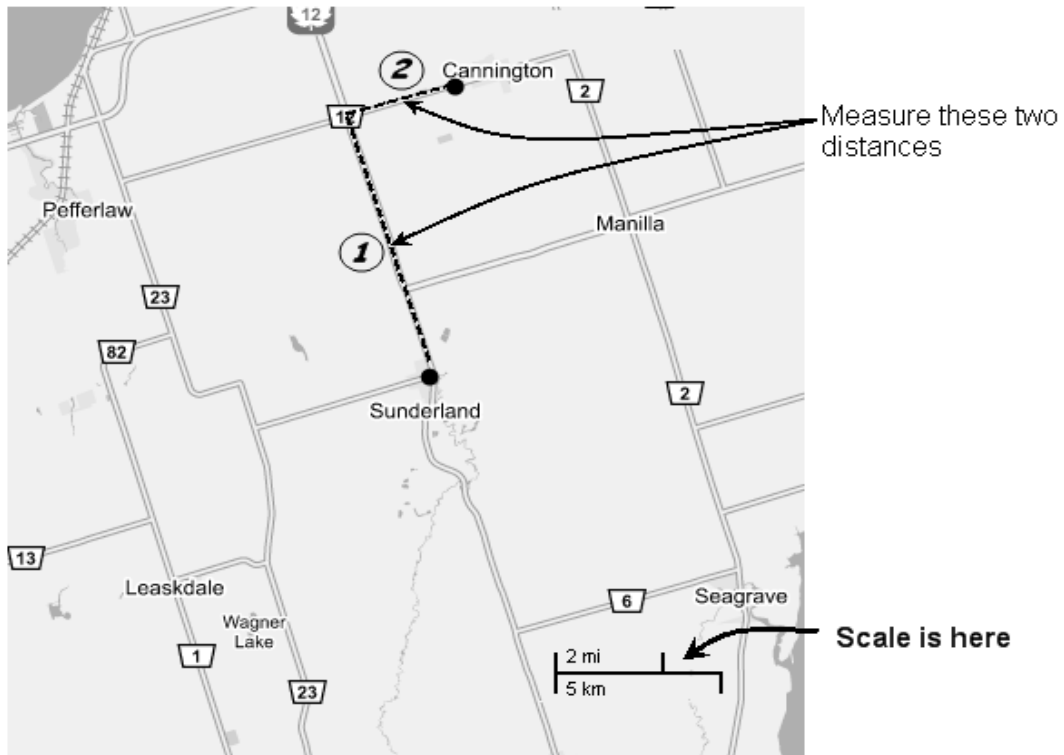
Rarely are two places on a map connected by a straight line. So estimation is used to calculate the distance between two locations. To use estimation effectively a scale must be given on the map to calculate distances. Usually, these scales are given in one of the corners of the map.

Example 1:

Calculate the distance between Sunderland and Cannington. Both locations are indicated by the (●) on the map. Measure the distance in Kilometres.



Solution



First: use a ruler measure the distance in mm of line 1 and line 2.

Line 1 = 42 mm Line 2 = 17 mm

Second: add the estimated distance measured on the map

Total measured distance = 42 + 17 = 59 mm

Third: measure the scale given on the map. 25 mm = 5 km

Four: use common ratios (equivalent fractions) to find the estimated distance

$$\frac{25\text{mm}}{5\text{km}} = \frac{59\text{mm}}{x\text{km}}$$

or

$$\frac{25}{5} = \frac{59}{x}$$

$$25x = 5(59)$$

$$25x = 295$$

$$x = 11.8\text{km}$$

Therefore the distance between Cannington and Sunderland is approximately 11.8 km.

Support Questions

1. Find the value of “x” for each situation set of ratios given below:

a. $\frac{5}{12} = \frac{x}{48}$

b. $\frac{3}{70} = \frac{x}{351}$

c. $\frac{8}{6} = \frac{x}{14}$

2. Find the unknown distance in kilometres represented by x.

a. $\frac{6 \text{ km}}{10 \text{ mm}} = \frac{x}{53 \text{ mm}}$

b. $\frac{25 \text{ km}}{5 \text{ mm}} = \frac{x}{73 \text{ mm}}$

c. $\frac{12 \text{ km}}{8 \text{ mm}} = \frac{x}{42 \text{ mm}}$

3. Using the map provided below find the distance between each of the towns or cities.



a. Pickering and Oshawa

b. Brooklin and Whitby

**Key Question # 19**

1. Find the value of “x” for each situation set of ratios given below:

a. $\frac{7}{15} = \frac{x}{62}$

b. $\frac{4}{38} = \frac{x}{200}$

2. Find the unknown distance in kilometres represented by x.

a. $\frac{5 \text{ km}}{15 \text{ mm}} = \frac{x}{70 \text{ mm}}$

b. $\frac{30 \text{ km}}{10 \text{ mm}} = \frac{x}{91 \text{ mm}}$

3. Why is not usually a realistic distance to measure the distance between two points on a map as a straight line? Explain.

Reading Charts and Schedules



Lesson 20

Lesson Twenty Concepts




- Reading schedules
- Recognizing taxes and levies involved with the cost of traveling
- Reading a 24 hour clock
- Calculating duration of a trip based on departure and arrival times
- Recognizing various factors involved in choosing a mode of travel

Reading Charts and Schedules

When traveling reading charts and schedules along with their associated costs of using that particular mode is essential.

Example 1

Use the flight schedule/chart below to answer the following questions.

WESTJET						
Fares do not include <u>taxes, fees, and surcharges.</u>						
Departing						
<input type="radio"/>	 Regular Fare	\$214.00 CAD	Tue, 09 Aug 05 Flight WS 625	07:30 09:35	Depart Arrive	Toronto, ON (YYZ) Vancouver, BC (YVR)
<input type="radio"/>	Regular Fare	\$284.00 CAD	Tue, 09 Aug 05 Flight WS 817	11:40 13:45	Depart Arrive	Toronto, ON (YYZ) Vancouver, BC (YVR)
<input type="radio"/>	Regular Fare	\$314.00 CAD	Tue, 09 Aug 05 Flight WS 803	13:15 15:20	Depart Arrive	Toronto, ON (YYZ) Vancouver, BC (YVR)
<input type="radio"/>	Regular Fare	\$284.00 CAD	Tue, 09 Aug 05 Flight WS 683	17:45 19:50	Depart Arrive	Toronto, ON (YYZ) Vancouver, BC (YVR)
<input type="radio"/>	 Regular Fare	\$214.00 CAD	Tue, 09 Aug 05 Flight WS 209	07:30 09:10 09:40 10:45	Depart Through Arrive	Toronto, ON (YYZ) Winnipeg, MB (YWG) Vancouver, BC (YVR)
<input type="radio"/>	Regular Fare	\$409.00 CAD	Tue, 09 Aug 05 Flight WS 663	09:05 11:17 12:00 12:25	Depart Through Arrive	Toronto, ON (YYZ) Calgary, AB (YYC) Vancouver, BC (YVR)
<input type="radio"/>	 Regular Fare	\$214.00 CAD	Tue, 09 Aug 05 Flight WS 653	07:15 09:30	Depart Connect	Toronto, ON (YYZ) Calgary, AB (YYC)

- a. Based on price which flights are the best?
- b. Based on the arrival time which flight is best?
- c. Which flights arrive in the morning?
- d. Which flight is the shortest?
- e. Why are there four times associated with WS 663?

Solution:

a. Best deals are WS 625, WS 209, WS 653

WESTJET						
Fares do not include <u>taxes, fees, and surcharges.</u>						
Departing						
<input checked="" type="radio"/>	Regular Fare	\$214.00 CAD	Tue, 09 Aug 05	07:30 Depart 09:35 Arrive	Flight WS 625	Toronto, ON (YYZ) Vancouver, BC (YVR)
<input type="radio"/>	Regular Fare	\$284.00 CAD	Tue, 09 Aug 05	11:40 Depart 13:45 Arrive	Flight WS 817	Toronto, ON (YYZ) Vancouver, BC (YVR)
<input type="radio"/>	Regular Fare	\$314.00 CAD	Tue, 09 Aug 05	13:15 Depart 15:20 Arrive	Flight WS 803	Toronto, ON (YYZ) Vancouver, BC (YVR)
<input type="radio"/>	Regular Fare	\$284.00 CAD	Tue, 09 Aug 05	17:45 Depart 19:50 Arrive	Flight WS 683	Toronto, ON (YYZ) Vancouver, BC (YVR)
<input checked="" type="radio"/>	Regular Fare	\$214.00 CAD	Tue, 09 Aug 05	07:30 Depart 09:10 Through 09:40 Arrive	Flight WS 209	Toronto, ON (YYZ) Winnipeg, MB (YWG) Vancouver, BC (YVR)
<input type="radio"/>	Regular Fare	\$409.00 CAD	Tue, 09 Aug 05	09:05 Depart 11:17 Through 12:00 Arrive	Flight WS 663	Toronto, ON (YYZ) Calgary, AB (YYC) Vancouver, BC (YVR)
<input checked="" type="radio"/>	Regular Fare	\$214.00 CAD	Tue, 09 Aug 05	07:15 Depart 09:30 Connect	Flight WS 653	Toronto, ON (YYZ) Calgary, AB (YYC)

b. Best arrival time is WS 653

c. Morning arrivals are WS 653, WS 209, and WS625

WESTJET						
Fares do not include <u>taxes, fees, and surcharges.</u>						
Departing						
<input checked="" type="radio"/>	Regular Fare	\$214.00 CAD	Tue, 09 Aug 05	<u>07:30</u> Depart <u>09:35</u> Arrive	Flight WS 625	Toronto, ON (YYZ) Vancouver, BC (YVR)
<input type="radio"/>	Regular Fare	\$284.00 CAD	Tue, 09 Aug 05	11:40 Depart 13:45 Arrive	Flight WS 817	Toronto, ON (YYZ) Vancouver, BC (YVR)
<input type="radio"/>	Regular Fare	\$314.00 CAD	Tue, 09 Aug 05	13:15 Depart 15:20 Arrive	Flight WS 803	Toronto, ON (YYZ) Vancouver, BC (YVR)
<input type="radio"/>	Regular Fare	\$284.00 CAD	Tue, 09 Aug 05	17:45 Depart 19:50 Arrive	Flight WS 683	Toronto, ON (YYZ) Vancouver, BC (YVR)
<input checked="" type="radio"/>	Regular Fare	\$214.00 CAD	Tue, 09 Aug 05	<u>07:30</u> Depart <u>09:10</u> Through <u>09:40</u> Arrive	Flight WS 209	Toronto, ON (YYZ) Winnipeg, MB (YWG) Vancouver, BC (YVR)
<input type="radio"/>	Regular Fare	\$409.00 CAD	Tue, 09 Aug 05	09:05 Depart 11:17 Through 12:00 Arrive	Flight WS 663	Toronto, ON (YYZ) Calgary, AB (YYC) Vancouver, BC (YVR)
<input checked="" type="radio"/>	Regular Fare	\$214.00 CAD	Tue, 09 Aug 05	<u>07:15</u> Depart <u>09:30</u> Connect	Flight WS 653	Toronto, ON (YYZ) Calgary, AB (YYC)

d. $9 - 7 = 2$ hours and $35 - 30 = 5$ min. Shortest trip is 2 hours and 5 minutes

<input checked="" type="radio"/>	Regular Fare	\$214.00 CAD	Tue, 09 Aug 05	<u>07:30</u> Depart <u>09:35</u> Arrive	Flight WS 625	Toronto, ON (YYZ) Vancouver, BC (YVR)
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e. Means the plane stops at other cities along the way from Toronto to Vancouver.

Support Questions

1. Use the schedule below to answer the following questions.

OSHAWA - WINNIPEG, on Wednesday Jul 27, 2005		
Departs: 16:11 OSHAWA	Arrives: 16:46 TORONTO	Train: 45 Class: Comfort
— CONNECTION —		
Departs: 09:00 TORONTO	Arrives: 15:45 on Jul 29 WINNIPEG	Train: 1 Class: Comfort
WINNIPEG - OSHAWA, on Sunday Jul 31, 2005		
Departs: 12:25 WINNIPEG	Arrives: 20:00 on Aug 1 TORONTO	Train: 2 Class: Comfort
— CONNECTION —		
Departs: 23:30 TORONTO	Arrives: 00:14 on Aug 2 OSHAWA	Train: 50 Class: Comfort
Fare Details		Fare Comparison
Passenger 1	(Adult)	\$770.40
Passenger 2	(Adult)	\$770.40
Passenger 3	(Child)	\$386.27
Fare: \$1,801.00 G.S.T./H.S.T.: \$126.07 P.S.T.: \$0.00		TOTAL CAD\$: \$1,927.07

- a. What is the departure time from Oshawa and arrival time in Toronto on July 27, 2005?
- b. What is the departure time from Toronto and arrival time in Winnipeg on July 27, 2005?

2. Use the above schedule to answer the following questions.

- How many people are traveling with this itinerary?
- What is the total cost of the trip?
- How much tax was charged on this trip?
- What class is being traveled by the people on this trip?

3. Use the schedule/chart below to answer the following questions;

GREYHOUND		SCHEDULES & FARES				
Toronto to Montreal						
Departure Schedule for Saturday, July 30, 2005						
Select	Departs	Arrives	Duration	Transfers	Carrier	Schedule
<input type="radio"/>	12:01am	08:20am	8h, 19m	1	GLC	6118
<input type="radio"/>	07:00am	03:25pm	8h, 25m	1	GLC	6130
<input type="radio"/>	09:30am	05:25pm	7h, 55m	1	GLC	6204
<input type="radio"/>	11:30am	07:30pm	8h, 0m	1	GLC	6206
<input type="radio"/>	02:30pm	10:20pm	7h, 50m	1	GLC	6210
<input type="radio"/>	04:30pm	12:20am	7h, 50m	1	GLC	6212
<input type="radio"/>	06:30pm	04:55am	10h, 25m	1	GLC	6220
Fares						
Fare Type	Qty	Passenger	Each	Total		
Standard	1	Adult	\$85.75	\$85.75		
1-Day Advance Purchase	1	Adult	\$60.75	\$60.75		
7-Day Advance Purchase	1	Adult	\$43.90	\$43.90		
Student ²	1	Adult	\$0.00	\$0.00		

- How many buses leave for Montreal from Toronto?
- Which bus schedule is the quickest?
- How much is saved if the ticket is purchased 7 days in advance instead of as a walk up (standard)?
- Why is there a “1” in the transfer column?



Key Question # 20

1. Use the schedule below to answer the following questions;

AIR CANADA

1 Review your itinerary

Flight	From	To	Date	Depart	Arrive	Stops	Duration	Aircraft	Fare Type	Meal Service*
AC1161	Toronto (YYZ)	Vancouver (YVR)	Sun 31-Jul	06:30	08:27	0	4hr57	320	Tango	B
AC1160	Vancouver (YVR)	Toronto (YYZ)	Thu 04-Aug	08:00	15:24	0	4hr24	763	Tango	B

Complimentary meal (including pre-ordered special meal) and/or beverage service is offered. Note that some flights do not feature a meal service depending upon flight duration, departure time or operating carrier. Please confirm service with carrier upon check-in.

* Meal legend:
 B = Breakfast

2 Review final quote details

Fare Summary

Passenger Type	Adult	Child (2-11)
Flight 1 - Departing airfare (Tango)	234.00	234.00
Flight 2 - Returning airfare (Tango)	349.00	349.00
Navcan and Surcharges	46.00	46.00
Taxes, Charges and Fees		
Canada Airport Improvement Fee	30.00	30.00
Canada Security Charge	9.35	9.35
Canada Goods and Services Tax (GST/HST #10009-2287)	46.78	46.78
Number of Passengers	2	2
Total	1430.26	1430.26
Grand Total - Canadian Dollars	\$ 2860.52	

[Convert currency](#)
 for informational purpose only

- a. What time does the plane leave Toronto and what time does it arrive in Vancouver?
- b. What is the total of all the surcharges and taxes on the cost of a single ticket?
- c. Why does it appear to take a great deal longer to fly back to Toronto?
- d. Why do you think the return trip costs more?
- e. What date is the trip to Vancouver and what date is the return trip to Toronto?



Key Question # 20 (continued)

2. Use the schedule below to answer the following questions.

TORONTO - HALIFAX, on Monday Sep 26, 2005	
Departs: 11:30 TORONTO	Arrives: 17:07 MONTRÉAL
— CONNECTION —	
Departs: 18:30 MONTRÉAL	Arrives: 16:20 on Sep 27 HALIFAX
Train: 60 Class: Comfort	
HALIFAX - TORONTO, on Thursday Sep 29, 2005	
Departs: 12:35 HALIFAX	Arrives: 08:15 on Sep 30 MONTRÉAL
— CONNECTION —	
Departs: 09:40 MONTRÉAL	Arrives: 15:20 TORONTO
Train: 15 Class: Comfort	
Train: 57 Class: Comfort	
Fare Details	
Passenger 1	(Adult) \$325.28
Fare: \$304.00 G.S.T./H.S.T.: \$21.28 P.S.T.: \$0.00 TOTAL CAD\$: \$325.28	

- What is the departure time from Toronto and arrival time in Montreal on Sept. 26, 2005?
- How many people are traveling with this itinerary?
- What is the total cost of the trip?
- How much tax was charged on this trip?
- What class is being traveled by the people on this trip?



Key Question # 20 (continued)

3. Use the schedule/chart below to answer the following questions.



Departing						
<input type="radio"/>	Regular Fare	\$400.00 CAD	Tue, 02 Aug 05 Flight WS 484	13:00 20:47	Depart Arrive	Calgary, AB (YYC) Halifax, NS (YHZ)
<input type="radio"/>	Regular Fare	\$460.00 CAD	Tue, 02 Aug 05 Flight WS 568 Flight WS 746	07:00 12:40 13:05 16:08	Depart Connect Arrive	Calgary, AB (YYC) Hamilton, ON (YHM) Halifax, NS (YHZ)
Returning						
<input type="radio"/>	Regular Fare	\$400.00 CAD	Sun, 07 Aug 05 Flight WS 485	08:45 11:10	Depart Arrive	Halifax, NS (YHZ) Calgary, AB (YYC)
<input type="radio"/>	Regular Fare	\$460.00 CAD	Sun, 07 Aug 05 Flight WS 663	07:00 08:20 09:05 11:17	Depart Through Arrive	Halifax, NS (YHZ) Toronto, ON (YYZ) Calgary, AB (YYC)
<input type="radio"/>	Regular Fare	\$540.00 CAD	Sun, 07 Aug 05 Flight WS 833 Flight WS 613	16:40 17:57 18:25 20:30	Depart Connect Arrive	Halifax, NS (YHZ) Hamilton, ON (YHM) Calgary, AB (YYC)
<input type="radio"/>	Regular Fare	\$540.00 CAD	Sun, 07 Aug 05 Flight WS 833 Flight WS 120	16:40 17:57 18:30 20:33 22:00 22:50	Depart Through Connect Arrive	Halifax, NS (YHZ) Hamilton, ON (YHM) Edmonton, AB (YEG) Calgary, AB (YYC)

- Based on price which flights are the best?
 - Based on the arrival times which flight is earliest to and from Halifax?
 - Which flights arrive in the morning?
 - Which flight combination is the shortest?
 - Why are there four times associated with WS 663?
 - What is the maximum number of cities that could be involved in a return trip?
What are these cities?
4. When booking an airline flight, name two factors other than price that might determine which flight to choose?