## Optional Discussion

Working independently, identify from the list provided, the shared maintenance duties for both Hybrid and VOLT . Support your answer

Brake maintenance $\qquad$
Battery Maintenance $\qquad$
"Safety Test" $\qquad$
Wiper Care $\qquad$
Head/tail Lights $\qquad$
Indicator Lights $\qquad$
Wheel Alignment $\qquad$
Tire rotation $\qquad$
Oil changes $\qquad$

## SOLVE THE FOLLOWING PROBLEMS

1. IF, the average number of kilometers a driver does in $\underline{1}$ year is $12,000 \mathrm{kms}$ ( $8,000 \mathrm{kms}$ EV power and 4,000kms on gasoline.
Tires should be rotated twice in the year (spring/winter) \$49.99/yr.
A wheel alignment is completed once a year
\$69.75
Depreciation is $20 \%$ year $1,18 \%$ year $2,15 \%$ year $3(\$ 40,280)$
What would it cost a driver to operate a VOLT for a 3 year period? (use the chart below)

| $1^{\text {st }}$ year $3^{\text {rd }}$ year |  |  |  |
| :--- | :--- | :--- | :--- |
| KMS: $(8,000 \mathrm{EV})$ |  |  | Depreciation |
| 1 ${ }^{\text {st }}$ year |  |  |  |
| KMS : 4,000 Gas |  |  | $2^{\text {nd }}$ year |
| Tire Rotation |  |  | $3^{\text {rd }}$ year |
| Alignment |  |  |  |

## TAKE IT FURTHER

A Hybrid car has optimal fuel consumption rating of $8 \mathrm{~L} / 100 \mathrm{kms}$ when driven at $100 \mathrm{~km} / \mathrm{hr}$. For each kilometer per hour greater than that speed, the fuel consumption Rating increases by 0.5\%.

Suppose you drive from Toronto to Kingston and back, for a total distance of 500km.
Use the current price of fuel in the K/W area to determine the cost of fuel for the same drive, when the vehicle is driven at these speeds.

Show your calculations for each speed indicated
a) $100 \mathrm{~km} / \mathrm{hr}$
b) $120 \mathrm{~km} / \mathrm{hr}$
c) $140 \mathrm{~km} / \mathrm{hr}$

