

1. A sales representative averages 3400 km of city driving each month in a Ford sedan that has a fuel consumption of 11.4 L/100 km. Calculate the cost of petrol used in a month in which the average price of unleaded petrol (ULP) is 149.9c/L.
2. In 2006 the average fuel consumption of Australian vehicles was 13.8 L/100 km and the average yearly distance travelled was 17 600 km. If the average price of fuel was 135.9c/L, what was the average yearly fuel cost?
3. A Citroën hatchback uses 7.6 L/100 km of ULP and the diesel model of the same car uses 6 L/100 km of diesel fuel.
 - a) Calculate the cost of driving the petrol model 780 km if ULP is 152.9c/L.
 - b) Calculate the cost of driving the diesel model 780 km if diesel fuel is 162.2c/L.
 - c) How much cheaper is the diesel option over this distance?
4. Jenny averages 13 000 km per year and wants to buy a new car. The car she likes is available with a petrol motor or diesel motor. The petrol model uses 12.8 L/100 km and the diesel model uses 7.8 L/100 km.
 - a)
 - i) If Jenny bought the car with the petrol engine, what would be her annual fuel cost if ULP is 152.9c/L?
 - ii) If Jenny bought the car with the diesel engine, what would be her annual fuel cost if diesel fuel is 169.9c/L?
 - iii) How much per year would she save by buying the car with the diesel engine?
 - b) What is the average monthly saving with the diesel engine?
 - c) The diesel car costs \$1200 more to buy than the petrol car. How many months would it take for Jenny to break even if she buys the diesel car?

d) What distance would Jenny travel before reaching her break-even point?