Student instructions sheet

You have just got your learner's license and you have been working and saving money to buy a car. You have saved $2500 and want to buy a car for between $3000 and $5000.

Your parents will lend you however much you need over $2500 but they are going to charge you 7.5% interest and you have to pay them back monthly over the next two years.

There are a lot more costs to owning a car than just buying it and putting petrol into it. Your task is to use the following information to work out how much it will cost you to run the car over the next two years and then how much money you will need each month.

Can you afford to own this car? You have a part time job and earn $12.20 per hour after tax. Your employer guarantees you a minimum of 10 hours work per week.

In working out your costings you could also consider other factors that could make the car more affordable. Some of the factors you could consider are the effect of travelling less kilometres, choosing a car with better fuel economy, choosing a cheaper car, not including the depreciation, working more hours or ignoring the allowance for unexpected expenses.

State clearly any assumptions that you make and explain your reasoning. You should show all your working clearly.

The quality of your explanation and decision, and how well you link this to the context will determine your overall grade. Students aiming for Excellence will need to show extended abstract thinking skills. Consider other things that could affect the running costs including the things mentioned above.

Here is some information about some cars you could buy.

Vehicle	Price($) (including GST)	Engine size (cc)	Fuel usage (Litres per 100km)
2000 Mazda Familia	3900	1500	8.5 (petrol)
2002 Daihatsu Mira	3990	1000	5.5 (petrol)
2000 Volkswagen Polo	4500	1400	6.5 (petrol)
1996 Subaru Impreza	3500	1500	8.5 (petrol)
2001 Toyota Corolla	4500	1600	8.5 (petrol)
1997 Subaru Forester	3800	2000	9.5 (petrol)
2005 Mazda Axela	4000	1500	6.5 (petrol)
1996 Honda Civic	3000	1600	6.5 (petrol)
1998 BMW 318	5000	2000	9.5 (petrol)
1990 Toyota Surf	3700	3000	9.5 (diesel)
1993 Isuzu Bighorn	3500	3100	8.5 (diesel)
1998 Nissan Terrano	4900	3300	14 (petrol)
1995 Toyota RAV4	3500	2000	9.5 (petrol)
2000 Ford Explorer	3900	4000	14 (petrol)
1996 Honda CRV	4500	2000	9.5 (petrol)
1989 Mitsubishi Pajero	4500	2500	9.5 (diesel)

How much will it cost you to run the car you choose for two years? You will need to include all of the following.

1	How much do you have to pay back to your parents?	Don't forget this includes adding on 7.5%.
2	Fuel costs	Plan on travelling about 10000km per year. Fuel costs change quite a lot. January 2015 petrol was about $1.80 per litre and diesel about $1.10 per litre When working out your fuel costs work out how much it would be plus or minus 12%.
3	Road user charges.	Only for diesel powered vehicles. This costs about $60 per 1000km.
4	Insurance	Your parents will arrange third party insurance but you will have to pay them $250 a year for this.
5	Registration	This will cost about $290 per year for petrol vehicles. This will cost about $420 per year for diesel vehicles.
7	Service	This will cost about $250 plus GST for a service and should be done about every 10000 km.
8	Warrant of Fitness	If the car was made before 2000 this has to be done every 6 months, otherwise it is only once a year. This costs about $55 plus GST.
9	Tyres	A tyre lasts about 80000 km. You could expect to replace at least one. They cost about $100.
10	Depreciation.	Cars decrease in value. Older cars at a slower rate but expect your car to decrease by about one eighth of the purchase price each year.
11	Unexpected costs.	You could hit a cow or your engine could blow up but it is hard to plan for these costs! Add on one-ninth of the total to cover these.