



SET X

Level 3 Certificate
MATHEMATICAL STUDIES

Paper 1

Preliminary material

Instructions

- This preliminary material will be given to you before your exam.
- You must not take annotated preliminary materials into the exam.
You will be given a clean copy by your teacher.

Preliminary material Paper 1

Going the extra mile



The pleasures first of passing your driving test and then owning your first car come with a variety of financial costs. These costs can be split into 'standing charges' and 'running costs'.

Standing charges

The cost of the car

This may be a one-off initial payment or some form of loan agreement. Even if the car is paid for outright, there is an opportunity cost in not having the cash available for earning interest or for some other purpose.

A standard way of considering the cost of a car is to use an annual figure for 'depreciation' and 'cost of capital'.

Other annual standing charges

Costs such as road tax, breakdown cover and (especially significant for young drivers) the cost of insurance must be added to the cost of the car.

Total annual standing charge

This total charge will, of course, vary for different drivers and different cars. The table shows approximate annual charges for a 'typical' driver according to the purchase price of the car when new.

| | | | | |
|-------------------------------------|--------|--------|--------|---------|
| Purchase price (£) | 12 000 | 15 000 | 25 000 | 35 000 |
| Standing charge (£ per year) | 2 000 | 3 000 | 4 000 | 10 000* |

*The jump in the total standing charge for the most expensive cars is partly caused by the higher insurance costs for these cars.

Running costs

These are often calculated as costs per mile. The main (and probably most obvious) cost is that of fuel. There are also smaller costs per mile for tyres, servicing and typical repairs.

Taxation 2015-16

National Insurance 2015-16

| Percentage National Insurance Due | Minimum Weekly Income | Maximum Weekly Income | Minimum Monthly Income | Maximum Monthly Income |
|-----------------------------------|-----------------------|-----------------------|------------------------|------------------------|
| Non-contracted out | | | | |
| Nil | | Below £112 | | Below £486 |
| 0% | £112 | £155 | £486 | £672 |
| 12% | £155.01 | £815 | £672.01 | £3532 |
| 2% | above £815 | | above £3532 | |
| Contracted out | | | | |
| 10.6% | £155.01 | £770 | £672.01 | £3337 |

Note: A person is '**contracted out**' if they are a member of a contracted out occupational pension scheme or personal/stakeholder pension. They pay a slightly lower rate of National Insurance as the state does not have to pay them as much pension.

A person with a weekly income of, say, £320 a week will pay 12% on the amount above £155.

A person with a weekly income of, say, £940 a week will pay 12% on the amount between £155.01 and £815 plus 2% of the amount above £815.

Income tax 2015-16

Most people have a personal allowance. This is an annual amount of tax-free income. The personal allowance for 2015-16 was £10 600. The rates of income tax you pay depend on how much taxable income you have above your personal allowance.

Income tax rates and taxable bands 2015-16

| Rate | Taxable Income |
|-----------------|------------------|
| Basic: 20% | £0-£31 785 |
| Higher: 40% | £31 786-£150 000 |
| Additional: 45% | Over £150 000 |

To calculate your income tax if your annual income is £100 000 or less

Find your taxable income by subtracting your personal tax allowance from your annual income.

You pay income tax at 20% on the first £31 785 of your taxable income.

You pay income tax at 40% on your taxable income over £31 785.

Student loans

Student loans are paid back at a rate of 9% of gross earnings in excess of £21 000 per year.

Interest is added to the loan from the time when earnings start.

Net pay

Your net pay or take-home pay is the money you earn after any deductions for income tax, National Insurance and student loan repayments.