**NCFE Level 3 Certificate in**

**Mathematics for Everyday Life (603/3437/X)**

**Pre-release Material SAMPLE**

**To be issued to learners on DATE in preparation for the external assessment (Paper 2).**

**Learner information**

* This pre-release material is for the below external assessment ONLY.
* You must not bring this pre-release material into the external assessment.
* You will be provided with a further copy of this pre-release material at the start of the external assessment.

**DATE 9.30 am—11.30 am**

**Time allowed:** 2 hours

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**Article A: House prices: how much does one square metre cost in your area?**

**Price per square metre.**

In 2016 the average cost of properties sold in England and Wales was £2,395 per square metre.

Unsurprisingly, 19 of the top 20 most expensive local authority areas are in London, with Kensington and Chelsea, the City of London, Westminster and Camden topping the list.

Barking and Dagenham was the least expensive London borough, where homes cost £3,994 per square metre.

Elmbridge in Surrey is the costliest area outside London, while York was the most expensive area in the North of England. South Wales and Lancashire are the cheapest places to buy property. In Blaenau Gwent, Merthyr Tydfil, Neath Port Talbot, Burnley and Hyndburn, homes cost less than £1,000 per square metre.

Homes in the most expensive area of England and Wales cost 25 times as much as in the cheapest area, according to the Office for National Statistics (ONS) analysis of 2016 property prices. One square metre of floor space – an area about the size of a red phone box – costs almost £19,439 in Kensington and Chelsea, while in Blaenau Gwent in the South Wales valleys, the same amount of space costs £777.

ONS also found that new flats in England and Wales have got 18% bigger in the last 3 years, while new houses have remained around the same size.

We’ve used ONS data on property prices per square metre to help you find out what extra floor space could be worth in your area.

|  |  |
| --- | --- |
| **Location** | **Price per m2 of housing** |
| Middlesbrough | 1063 |
| York | 2591 |
| Nottingham | 1391 |
| Swindon | 2224 |
| Southend-on-Sea | 2972 |
| Windsor and Maidenhead | 4951 |
| Brighton and Hove | 3964 |
| Wycombe | 3999 |
| Exeter | 2496 |
| Kensington and Chelsea | 17988 |
| Westminster | 13135 |
| Burnley | 829 |
| Manchester | 1630 |
| Cambridge | 4747 |

**Article B: Punctuality statistics for 25 UK Airports**

Punctuality statistics are calculated for 25 UK Airports. The planned time of operation is obtained from the airport scheduling committees. This is merged with the actual time of operation on the air transport movement records collected in UK Airport Statistics.

Information is published each month which shows the average delays on scheduled and charter services at each of the airports both in total and at an individual route/airline level.

Southend is being included for the first time from April 2016.

It should be noted that the statistics in this notice cover only those flights which were operated; they do not cover those flights which were cancelled. Some airport or airline business models prioritise delaying flights rather than cancelling them outright.

The information contained in these reports has been compiled from various sources of data. CAA (Civil Aviation Authority) validates this data, however, no warranty is given as to its accuracy, integrity or reliability. CAA cannot accept liability for any financial loss caused by a person’s reliance on any of these statistics. No statistical data provided by CAA may be sold on to a third party. CAA insists that they are referenced in any publication that makes reference to CAA Statistics.

The data for 2017 together with some comparative data for 2016 is provided on the next page.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2017 | | | | | | | | 2016 | | |
| **Airport** | **Total Flights** | **On time (Less by 15 minutes late) (%)** | **Late by 16 - 30 minutes (%)** | **Late by 31 - 60 minutes (%)** | **Late by 61- 180 minutes (%)** | **Late by 181 - 360 minutes (%)** | **Late by more than 360 minutes (%)** | **Mean delay in minutes** | **Total Flights** | **Late by 15 minutes or less** | **Mean delay in minutes** |
| Heathrow | 471041 | 77.43 | 11.43 | 7.22 | 3.47 | 0.35 | 0.1 | 12.39 | 470641 | 76.35 | 13.52 |
| Gatwick | 281710 | 65.31 | 16.08 | 11.48 | 6.45 | 0.59 | 0.1 | 18.83 | 275289 | 61.31 | 22.9 |
| Manchester | 193512 | 69.57 | 14.34 | 9.52 | 5.9 | 0.58 | 0.09 | 17.17 | 182400 | 73.64 | 14.97 |
| Stansted | 161270 | 69.18 | 15.24 | 10.21 | 4.72 | 0.51 | 0.14 | 16.46 | 152331 | 73.14 | 14.47 |
| Edinburgh | 116771 | 72.69 | 13.68 | 8.61 | 4.57 | 0.42 | 0.04 | 14.65 | 110278 | 73.11 | 14.81 |
| Birmingham | 109065 | 68.58 | 15.42 | 9.82 | 5.61 | 0.49 | 0.08 | 17.37 | 102904 | 74.8 | 14.61 |
| Luton | 104062 | 68.68 | 14.73 | 10.15 | 5.8 | 0.56 | 0.08 | 17.08 | 99953 | 66.32 | 18.25 |
| Glasgow | 88246 | 74.91 | 11.8 | 7.96 | 4.74 | 0.51 | 0.07 | 14.45 | 84735 | 75.21 | 14.23 |
| London City | 75797 | 81.6 | 8.39 | 5.73 | 3.93 | 0.33 | 0.02 | 10.45 | 80446 | 76.47 | 12.83 |
| Bristol | 63332 | 68.81 | 14.42 | 10 | 6.11 | 0.59 | 0.08 | 17.82 | 60737 | 75.36 | 14.64 |
| Aberdeen | 48588 | 75.97 | 10.62 | 7.13 | 5.55 | 0.68 | 0.05 | 14.98 | 45118 | 78.82 | 13.75 |
| Newcastle | 43278 | 80.08 | 10.18 | 5.8 | 3.53 | 0.35 | 0.06 | 11.73 | 40877 | 80.74 | 11.8 |
| Belfast International | 39972 | 74.73 | 11.41 | 7.99 | 5.25 | 0.49 | 0.13 | 15.74 | 37084 | 72.38 | 16.78 |
| Southampton | 39262 | 78.25 | 9.56 | 6.49 | 5.05 | 0.57 | 0.08 | 13.71 | 37431 | 79.42 | 12.89 |
| Belfast City (George Best) | 36532 | 80.82 | 8.8 | 6.21 | 3.93 | 0.24 | 0.01 | 11.14 | 41286 | 84.58 | 9.29 |
| East Midlands International | 35208 | 77.33 | 12.33 | 6.46 | 3.48 | 0.33 | 0.07 | 12.68 | 34923 | 77.8 | 12.94 |
| Liverpool (John Lennon) | 35182 | 75.8 | 12.65 | 6.95 | 4.02 | 0.5 | 0.09 | 14.02 | 37928 | 76.37 | 14.1 |
| Leeds Bradford | 33864 | 81.02 | 9.65 | 5.53 | 3.34 | 0.4 | 0.06 | 13.7 | 31296 | 82.1 | 11.3 |
| Jersey | 22414 | 73.48 | 11.4 | 7.81 | 6.46 | 0.7 | 0.16 | 16.92 | 23791 | 72.35 | 17.12 |
| Cardiff Wales | 16633 | 75.23 | 11.96 | 7.07 | 4.85 | 0.81 | 0.08 | 15.14 | 15571 | 76.82 | 14.11 |
| Exeter | 13042 | 78.1 | 9.45 | 6.56 | 5.23 | 0.59 | 0.07 | 13.82 | 12471 | 80.45 | 12.95 |
| Southend | 10905 | 81.05 | 7.74 | 5.86 | 4.48 | 0.81 | 0.07 | 12.94 | 6214 | 79.95 | 14.61 |
| Doncaster Sheffield | 9645 | 77.36 | 11.78 | 6.49 | 3.95 | 0.4 | 0.02 | 12.85 | 9429 | 76.98 | 13.78 |
| Bournemouth | 4192 | 78.96 | 11.38 | 6.37 | 2.89 | 0.38 | 0.02 | 11.67 | 4232 | 77.84 | 12.31 |
| Durham Tees Valley | 3943 | 72.46 | 13.57 | 7.91 | 5.45 | 0.51 | 0.1 | 16.66 | 3623 | 81.34 | 12.15 |

**Article C: Income Tax and National Insurance 2017—2018**

Income tax rates and taxable bands 2017— 2018

|  |  |
| --- | --- |
| **PAYE tax rates and thresholds** | **2017—2018** |
| Personal allowance | £221 per week  £958 per month  £11,500 per year |
| Basic rate | 20% on annual earnings above the PAYE threshold and up to £33,500 |
| Higher rate | 40% on annual earnings from £33,501- £150,000 |
| Additional | 45% on annual earnings over £150,000 |

**How to calculate your income tax if your annual income is £100,000 or less:**

Find your taxable income by subtracting your personal tax allowance and your personal pension contributions from your annual gross income

You pay income tax at 20% on the first £33,500 of your taxable income.

You pay income tax at 40% on your taxable income over £33,500

**Personal pension contributions.**

In most cases, your pension contributions are deducted from your salary **before** income tax is paid on them and so are effectively “tax free”.

**National Insurance (NI) 2017— 2018**

You only make National Insurance deductions on earnings above the Lower Earning Limit (LEL).

**Class 1 National Insurance thresholds**

|  |  |
| --- | --- |
| **LEL** | £113 per week  £490 per month  £5,876 per year |
| **Primary Threshold (PT)** | £157 per week  £680 per month  £8,164 per year |
| **Upper Earnings Limit (UEL)** | £866 per week  £3,750 per month  £45,000 per year |

**Class 1 National Insurance rates**

|  |  |
| --- | --- |
| **Earnings at or above LEL up to and including PT** | 0% |
| **Earnings above PT and up to and including UEL** | 12% |
| **Balance of earnings above UEL** | 2% |

**Examples**

A person who had a weekly income of £375 pays 12% on the amount above £157.

A person who had a monthly income of £4,250 pays 12% on the amount between £680 and £3,750 plus 2% of the amount above £3,750.

**Gross pay**

Your gross pay is your wage or salary, before any deductions are made.

**Net pay**

Your net pay (or take-home pay) is the amount of money you receive after income tax, National Insurance and other deductions have been taken off your gross pay.

**National Minimum Wage (from 1 April 2018)**

|  |  |
| --- | --- |
| **National Living Wage (25+)** | £7.83 per hour |
| **NMW (21— 24)** | £7.38 per hour |
| **NMW (18— 20)** | £5.90 per hour |
| **NMW (16—17)** | £4.20 per hour |

**Student Loans (Tax year 2017—18)**

The Student Loans Company (SLC) gives loans to students at university.

There are 2 types of repayment plan for student loans. If you started your course before 1 September 2012 you will be on repayment plan 1

If you started your course on or after 1 September 2012 you will be on repayment plan 2.

**Repayment plan 1**

You only start making repayments when your gross income is over the threshold of £17,775 a year (£1481.25 per month, £341.82 per week). You pay 9% of anything you earn over the threshold.

**Repayment plan 2**

You only start making repayments when your gross income is over the threshold of £25,000 a year (£1750.00 per month, £403.84 per week). You pay 9% of anything you earn over the threshold. For either plan you can also make additional voluntary repayments to SLC at any time which will reduce your balance earlier.

**House prices: how much does one square metre cost in your area?**

[www.ons.gov.uk/peoplepopulationandcommunity/housing/articles/housepriceshowmuchdoesonesquaremetrecostinyourarea/2017-10-11](https://www.ons.gov.uk/peoplepopulationandcommunity/housing/articles/housepriceshowmuchdoesonesquaremetrecostinyourarea/2017-10-11) Accessed 27/08/2018.

**Punctuality statistics for 25 UK Airports**

[www.caa.co.uk/Data-and-analysis/UK-aviation-market/Flight-reliability/Datasets/Punctuality-data/Punctuality-statistics-2017/](https://www.caa.co.uk/Data-and-analysis/UK-aviation-market/Flight-reliability/Datasets/Punctuality-data/Punctuality-statistics-2017/) Accessed 27/08/2018.

**Rates and allowances: HM Revenue and Customs**

[www.gov.uk/guidance/rates-and-thresholds-for-employers-2017-to-2018](http://www.gov.uk/guidance/rates-and-thresholds-for-employers-2017-to-2018) Accessed 04/09/18.