Income Tax

- Income tax is a non-voluntary contribution made by the working population.
- It is used to support government expenditure on aspects such as education, health, social care, public order and safety.
- Income tax is usually deducted from directly from earnings by the employer – 'Pay as you Earn', 'PAYE'.
- Your earnings before tax deductions are known as your GROSS earnings.
- Your earnings after deductions ('take home pay') are known as your NET income.
- In most countries income tax is charged on a scale which depends on your income, so those who earn the least pay less tax (zero tax in some instances) and those with greater wealth pay more.
- In the UK in 2018, the income tax bands are:

Taxable income	Tax Rate
Up to £11850	0%
£11851 to £46350	20%
£46351 to £150000	40%
Over £150000	45%

For example (1), calculate the income tax paid by the following individuals who are working in the UK:

a. David, police officer, £37 583 pa

11 850 x 0% = 0

(37583 - 11 850) x 20% = 5146.60

Pays £5146.60

As a % of income $\frac{5146.60}{37583} \times 100 = 13.7\%$

b. Karen, Air Traffic Controller, £51 609 pa

$11\,850 \times 0\% = £0$

$(46\,350 - 11\,850) \times 20\% = £6\,900$

$(51\,609 - 46\,350) \times 40\% = £2103.60$ +

Tax = £9003.60

As % of income $\frac{9003.60}{51\,609} \times 100 = 17.4\%$

c. Peter, Junior Reporter, £15 500 pa

$11\,850 \times 0\% = £0$

$(15\,500 - 11\,850) \times 20\% = £730$

Tax = £730

As % of income $= \frac{730}{15\,500} \times 100 = 4.7\%$

d. Tracy, Chief Executive, £750 000 pa

$11\,850 \times 0\% = £0$

$(46\,350 - 11\,850) \times 20\% = 6\,900$

$(150\,000 - 46\,350) \times 40\% = 41\,460$

$(750\,000 - 150\,000) \times 45\% = $ ~~330 750~~ 270 000

Tax 379 110

318 360

As % of income $= \frac{379\,110}{750\,000} \times 100 = $ ~~50.5%~~ 42.4%

Challenge #1

David is considering emigrating to either Australia, France or Japan. Using the information given below, can you advise her as to which country she should emigrate if she wishes to pay the least amount of tax on her earnings.

Australia

Exchange Rate £1 = $1.74

Taxable income	Tax Rate
$0 to $18 200	0%
$18 201 to $37 000	19%
$37 001 to $90 000	32.5%
$90 001 to $180 000	37%
Over $180 000	45%

£37583 ≡ $65394

18200 × 0% = 0

(37000 − 18200) × 19% = 3572

(65394 − 37000) × 32.5% = 9228.05

Tax $12800.05

% of earnings 19.6%

France

Exchange Rate £1 = €1.12

£37583 ≡ €42093

Taxable income	Tax Rate
€0 to €9 807	0%
€9 808 to €27 086	14%
€27 087 to €72 617	30.0%
€72 618 to 153 783	41%
Over €153 783	45%

9807 × 0% = 0

(27086 − 9807) × 14% = €2419.06

(42093 − 27086) × 30% = €4502.10

Tax €6921.16

% of Gross 16.4%

Japan

Exchange Rate £1 = ¥144

£37583 ≡ ¥5,411,952

Taxable income	Tax Rate
¥0 to ¥1 950 000	5%
¥1 950 001 to ¥3 300 000	10%
¥3 300 001 to ¥6 950 000	20%
¥6 950 001 to ¥9 000 000	23%
¥9 000 001 to ¥18 000 000	33%
¥18 000 001 to ¥40 000 000	40%
Over ¥40 000 000	45%

1950000 × 5% = ¥97500

(3300000 − 1950000) × 10% = ¥135000

(5411952 − 1950000) × 20% = ¥1043390.40

Tax ¥1275890.40

% of Gross 23.6%.

He should STAY in UK!!

What assumptions have you made?

Assumed · equivalent rate of pay to UK in each country
· equivalent standard of living in each country

Challenge #2

Karen's father Reg, was also an air traffic controller who worked during the 1970's when income tax was charged differently. Given that Karen's equivalent salary in 1975 would have been £8 500, work out whether it is Karen or Reg who had the greatest tax burden on their incomes.

What assumptions are you making?

Taxable income	Tax Rate
£0 to 4 500	33%
£4 501 to £5 000	38%
£5 001 to £6 000	43%
£6 001 to £7 000	48%
£7 001 to £8 000	53%
£8 001 to £10 000	58%
£10 001 to £12 000	63%
£12 001 to £15 000	68%
£15 001 to £20 000	73%
over £20 000	83%

4 500 × 33 % = 1485
(5000 − 4500) × 38% = 190
(6000 − 5000) × 43% = 430
(7000 − 6000) × 48% = 480
(8000 − 7000) × 53% = 530
(8500 − 8000) × 58% = 290
3405

As % of gross = $\frac{3405}{8500} \times 100 = 40\%$.

Karen only pays 17% of her earnings on tax.

Tracy's equivalent salary in 1975 would have been £92 000. How does her tax burden compare under the 1975 and 2018 tax regimes?

Tracy
1485
190
430
480
530
2000 × 58 % = 1160
2000 × 63 % = 1260
3000 × 68 % = 2040
5000 × 73 % = 3650
(92 000 − 20 000) × 83% = 59 760
70 985

% income $\frac{70985}{92000} \times 100$
= 77%..!!
Compared to 51% in 2018.