National Insurance Monthly 2022-23

AQA Paper 1 Finance

This sheet just asks a few questions focusing on jobs that are paid monthly.

Percentage NI due	Minimum monthly income	Maximum monthly income	Minimum yearly income	Maximum yearly income
0%		up to £1048		£12 570
13.25%	£1048	£4189	£12 570	£50 270
3.25%	above £4189		above £50 270	

Starter questions

Q1) One month, Fazan worked a total of 142 hours. He gets paid £6.75 per hour and does some working out as follows.

> My pay this month
>
> 142 × 6·75 = £958·50
>
> The monthly threshold is £1048.
>
> I don't pay any N.I. this month

Has Fazan done his calculations correctly?

Q2) Fazan goes on to say, "At my current hourly pay, I'd have to work over 20 hours a day throughout April to break the threshold for the 3.25% rate."

Using appropriate calculations, show that Fazan is correct.

Q3) Esme has been keeping track of her pay over from the start of the year.

Calculate how much National Insurance she should be paying each month.

Month	Total pay	National Insurance
Jan	£950	
Feb	£1200	
March	£1340	

More advanced question

Q4)   Dave is a freelance maths consultant and his pay can vary significantly each month.

His accountant calculates his National Insurance using monthly pay as it's too difficult to predict an annual salary.

The table shows his pay for the four months at the end of last year.

Month	Total pay	National Insurance workings	NI
Sept	£6204	13.25% $(4189 - 1048) \times 0.1325 = 416.18$ 3.25% $(6204 - 4189) \times 0.0325 = 65.48$	£481.66
Oct	£5860		
Nov	£4200		
Dec	£2212		
		Total	

The National Insurance for September has been calculated.

a)   Verify the September calculations and show that the answers have been truncated (rounded down)

b)   Complete the table for the other three months

c)   Work out what percentage of Dave's total pay for the four months was deducted in National Insurance contributions

To think about

Q5)   Compare the two thresholds for monthly and yearly at the 3.25% level.

Is the annual threshold twelve times the monthly one?

Q6)   Tashi was going to paid £4150 this month but is offered some extra work to take her pay to £4250 instead. How much additional National Insurance does the extra £100 pay incur?

ANSWERS

Q1)   Yes, that's correct. They are below the £1048 threshold.

Q2)   The 3.25% threshold is £4189 and there are 30 days in April

$4189 \div 6.75 = 620.6 \ hours$

$620.6 \div 30 = 20.69$

This is over 20 hours a day, so yes, Fazan is correct.

Q3)

Month	Total pay	National Insurance
Jan	£950	Below the threshold – none
Feb	£1200	$1200 - 1048 = 152$ $152 \times 0.1325 = £20.14$
March	£1340	$1340 - 1048 = 292$ $292 \times 0.1325 = £38.69$

Q4a)   They have been rounded down.

Q4b)

Month	Total pay	National Insurance workings		NI
Sept	£6204	13.25% 3.25%	$(4189 - 1048) \times 0.1325 = 416.18$ $(6204 - 4189) \times 0.0325 = 65.48$	£481.66
Oct	£5860	13.25% 3.25%	$(4189 - 1048) \times 0.1325 = 416.18$ $(5860 - 4189) \times 0.0325 = 54.30$	£470.48
Nov	£4200	13.25% 3.25%	$(4189 - 1048) \times 0.1325 = 416.18$ $(4200 - 4189) \times 0.0325 = 0.35$	£416.53
Dec	£2212	13.25%	$(2212 - 1048) \times 0.1325 = 154.23$	£154.23
			Total	£1522.90

Q4c)   Total pay for those four months is £18 476

Total National Insurance is £1522.90

$\frac{1522.90}{18476} \times 100 \approx 8.24\%$

Q5)   Not quite. I don't know why.

Q6)   Of that £100, £39 is still in the 13.25% threshold while the other £61 goes into the 3.25% rate

$39 \times 0.1325 = 5.16$ $61 \times 0.0325 = 1.98$

Total of £7.14 for that £100