## Practice Exam 3

## NON- CALCULATOR

 Dave and Elaine each have the same monthly data allowance on their mobile phone contract.

Dave has used  $\frac{4}{7}$  of his monthly data allowance.

Elaine has used  $\frac{5}{8}$  of her monthly data allowance.

Who has used the most data?

Give a reason for your answer

3 marks

2. The table below shows the average monthly exchange rates for British pounds (GBP) to euros (EUR) between January and July 2012.

Average Monthly Rates ( 1 GBP to EUR)		
January	1,2018 EUR	
February	1.1949 EUR	
March	1.1984 EUR	
April	1,2166 EUR	
May	1.2435 EUR	
June	1.2410 EUR	
July	1.2637 EUR	

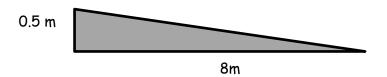
Using the information above, how many more euros would I have received if I changed £500 when the exchange rate was at its highest compared to its lowest?

Show all working.

3 marks

- 3. The "accessibility guidelines for buildings and faculties for wheelchair access" give two recommendations.
  - The maximum gradient of a ramp shall be 0.083.
  - The maximum rise shall be 760mm for any length of run.

The drawing below shows the design for a new ramp.



Does the new ramp meet the recommendations? Give a reason.

2 marks

## **CALCULATOR**

4. The travelling expenses claimed by salesperson depend on the engine capacity of the car and the number of miles travelled per week as shown in the table below.

ENGINE CAPACITY	EXPENSES PER MILE		
Less than or equal to 1 litre	£0.25 for each of the first 250 miles		
Greater than 1 litre but less than or	£0.27 for each of the first 250 miles		
equal to 1.2 litres			
Greater than 1.2 litres	£0.29 for each of the first 250 miles		
Where the number of miles travelled in a we	nere the number of miles travelled in a week is <b>greater than 250</b> , £0.15 can be		
claimed for <b>each</b> additional mile.			

Find the expenses claimed by a salesperson in a week when 550 miles are travelled and the engine capacity is 1.6 Litres.

4 marks

5. A copy of Logan Pollock's payslip is shown below for one week in February.

Name	Employee No.	Tax Code	Week Ending
L. Pollock	027	64L	14/02/2012
Basic Pay	Overtime Pay	Bonus	Gross Pay
£296-00		—	£351·50
National Insurance	Income Tax	Pension	Deductions
£20-04	£45·40	£21·09	£86.53
		•	Net Pay £264 · 97

Logan worked 40 hours for his basic pay.

If overtime is paid at the rate of "time and a half", calculate how many hours of overtime he worked during that week.

3 marks

6. One weekend, the attendances at five Premier League football matches were recorded.

8 900 12 700 59 200 10 300 9 700

The median attendance is 10 300.

(a) Calculate the mean attendance.

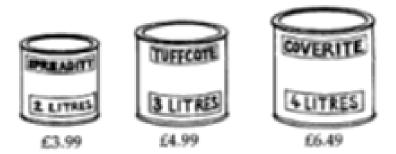
1 mark

(b) Which of the two averages is more representative of the data?

You must explain your answer.

1 mark

- 7. A superstore has three kinds of paint.
  - (a) Using the information shown, explain why Coverite appears to give the best value for money.



3 marks

(b) On the backs of the tins is more information. Using this additional information, decide which paint is the best value for money.

You must show all your working.



3 marks

8. In January, Tony weighed himself. The scales read 95kg. He is going on holiday on the  $6^{th}$  July. He wants to hit a target weight of 73 Kg by then.

On the  $1^{st}$  February, he hired Calum as his personal trainer. Calum reckoned his programme of exercise and diet would see Tony reduce his weight by 6% each month.

If Calum's programme is successful, will Tony reach his target weight before the date of his holiday?

Use your working to justify your answer.

3 marks