Name:		

Teacher Assessment



Topic 37 - F Functional Number

Section A Currency Conversions Grade D / C

HUW	many Swice france does he receive?
	many Swiss francs does he receive?
•••••	
•••••	
	Answer Swiss francs (Total 2 marks)
The t	able shows the exchange rates between different currencies.
	£1 (pound) is worth 1.64 euros
	\$1 (dollar) is worth 1.05 euros
(a)	Jane changes £400 into euros. How many euros does she receive?
	Answer euros
(b)	Sonia changes 672 euros into dollars. How many dollars does she receive?
	Answer
In the	e USA, a leather jacket costs \$96. exchange rate is \$1.60 to £1.
The e	the cost of the jacket in £.
The e	the cost of the jacket in £.
The e	the cost of the jacket in £.
The e	the cost of the jacket in £.

Work out the cost of the bill in pour	nds.
	Answer £(Total 2 man
In France, Chris pays \in 18 for a mea The exchange rate is £1 = \in 1.60	1.
What is the price of the meal in pour	nds?
	Answer £(Total 2 man
In the Czech Republic, Boris pays 9 The exchange rate is 49.1 korunas to What is the cost of the meal in pour	o £1.
In the Czech Republic, Boris pays 9 The exchange rate is 49.1 korunas to What is the cost of the meal in poun	o £1.
The exchange rate is 49.1 korunas to	o £1.
The exchange rate is 49.1 korunas to	o £1.
The exchange rate is 49.1 korunas to	o £1. ds? Answer £
The exchange rate is 49.1 korunas to	o £1. ds? Answer £
The exchange rate is 49.1 korunas to What is the cost of the meal in poun	o £1. ds? Answer £
The exchange rate is 49.1 korunas to	o £1. ds? Answer £
The exchange rate is 49.1 korunas to What is the cost of the meal in poun A drink in Japan costs 374 yen. The exchange rate is £1 = 189 yen.	o £1. ds? Answer £
The exchange rate is 49.1 korunas to What is the cost of the meal in poun A drink in Japan costs 374 yen. The exchange rate is £1 = 189 yen.	o £1. ds?

She	ine goes on holiday. changes £200 into Euros (\in) exchange rate is £1 = \in 1.7	
(a)	How many Euros does Pauline receive for £200?	
	Answer €	(2)
(b)	Pauline spends one quarter of her Euros on presents.	
	How many Euros does she spend on presents?	
	Answer €	(2)
(c)	A bag is priced at €68. In a sale, this price is reduced by 25%. Pauline buys the bag.	
	How much does she save?	
	Give your answer in pounds.	
	Answer £	
		(4) tal 8 marks)

8.

Stef	f buys a pair of jeans in the USA.		
The	jeans cost \$24.99		
The	exchange rate is \$1.47 to £1.		
Hov	w much do the jeans cost in £?		
	Answ	er £	
			(Total 2 marks)
The	table shows some exchange rates.		
	£1 is worth 1.82 American dollars		
	£1 is worth 194		
	Japanese yen		
	nne buys a camera in America and pays 200 c c buys a similar camera in Japan and pays 20		
	which country is the camera cheaper and by h		
•••••			••••
•••••			••••
•••••			
	Answer Country		
	Amount		(Total 4 marks)
			,
cess:		Target:	

Teacher Assessment



Topic 37 - F Functional Number

Section B

Upper and Lower Bounds

Grade D / C

A ba	ag of potatoes weighs 9 kg to the nearest k	kilogram.	
Writ	te down the least possible weight of the ba	ag of potatoes.	
	An	iswer	kg (Total 1 m a
A sp	port pitch has a length of 75 metres, correct	ct to the nearest metre.	
Writ	te down the least and the greatest possible	e length of this pitch.	
	Answer	Least	
		Greatest	metres (Total 2 mar
	unt Everest is 8848 m high to the nearest r metres?	•	J
kilor 	metres?		
kilor 	metres?		km
kilor	metres?		km
kilor	Metres? Answer	e nearest gram.	km
kilor 	Answer toffees weigh 9 grams each, correct to the What is the minimum possible weight of	e nearest gram.	km (Total 2 ma
kilor 	Answer toffees weigh 9 grams each, correct to the What is the minimum possible weight of	e nearest gram. of a nut toffee?	km (Total 2 ma

(Total 2 marks)

	Write	a down the least an	d greatest possible distance that she travelled.	
	WIIIC	down the least an	d greatest possible distance that she travelled.	
		Answer	Least miles	
			Greatest miles	(Total 2 marks
	Garry	runs a distance of	f 15 km, correct to the nearest km.	
	(a)	Write down the r	ninimum distance Garry could have run.	
			Answer	
	(b)	Write down the r	naximum distance Garry could have run.	
			Answer	km (1 (Total 2 marks
	One o		at from Thailand is the smallest known mammal. mm long to the nearest millimetre. sible length?	
			Answer	mm (Total 1 mark)
•	(a)	Alex weighs 43 k	cilograms to the nearest kilogram.	
		Write down her r	ninimum weight.	
			Answer	kilograms (1)
			20	
	(b)	Alex's height is	30 centimetres to the nearest 10 centimetres.	
	(b)	Alex's height is 1 Write down her r		

				_
		Answer	Greatest	kg
			Least	kg (Total 2 ma)
	It t	akes 20 minutes to develop a rol	l of film. This time is to the nearest mi	nute.
	Wl	nat is the least and greatest time	this could be?	
		Answer	Least	minutes
			Greatest	minutes (Total 2 man
		s the length of a corridor is 35 n		
N	Mary and	Habib are both correct.	r is 30 m to the nearest 10 metres.	
C	Give a po	ossible value for the actual length	n of the corridor.	
			Answer	metres (Total 2 man
	Th	ere are 14 700 (to the nearest hu	ndred) spectators at a football match.	
	(i)	What is the least possible nu	mber of spectators?	
			Answer	
	(ii	What is the maximum numb	on of amoutatous?	
	(11) What is the maximum numb	-	
			Answer	(1) (Total 2 mar
S	Sophie sp	pends £8 on a picture. This amou	ant is given correct to the nearest pound	l .
V	Write do	wn		
(8	a) the	maximum price which Sophie of	could have paid,	
		Answe	r £	
(1	b) the	minimum price which Sophie c	ould have paid.	

14.	Kirst	y buys a bag that costs £25 to the nearest pound.
	(a)	Write the least amount that she could have paid.
		Answer £(1)
	(b)	Write the greatest amount that she could have paid.
		Answer £
15.	This	is a true statement.
	Write	I am 18 years old. Kylie
		e down
	(a)	the minimum age that Kylie could be,
		Answer(1)
	(b)	the maximum age that Kylie could be.
		Answer
		(1) (Total 2 marks)
Succ	ess:	Target:

Teacher Assessment



Section C Functional Number Problems

Grade $G \rightarrow D$

- **1.** Mr Gordon pays for a family holiday.
 - (a) Complete his bill.

Description

Cost

2 adults @ £540 each

3 children @ £250 each

Hire of car for 10 days @ £20 per day

Total £

(3)

(b) Mr Gordon pays £240 by cheque for some foreign currency. The cheque below shows how he completes it.

AQA Bank Limited Manchester M15 6EX	95-31-18 123456789 <u>Date</u> 5th June 2006
Pay Travel tours	
Amount Two hundred and forty pounds	£ 240.00
	K Gordon

Mr Gordon also pays for the family holiday by cheque. Complete the cheque below in words **and** figures.

AQA Bank Limited	95-31-18
Manchester M15 6EX	123456789
	Date 5th June 2006
Pay Travel tours	_
Amount	£
	_ K Gordon

(2) (Total 5 marks)

(Total 4 marks)

2.	Jame	el is buying a dining tabl	e for £250. He pays a deposit that is half of the cost	
	(a)	How much is the depos	it that Jameel pays?	
			Answer £	(1)
	(b)	Jameel will pay the rem	naining cost in 10 equal payments.	
		How much is each payr	ment?	
			Answer £	(2)
				(Total 3 marks)
•				
3.				
			PETE'S PIZZA ***********************************	
			£5.75 per pizza We deliver to your house for £2.50	
		(a) Errol orders 3 piz	zzas to be delivered to his house.	
		How much will he pay	altogether?	
		11110 1101 2011111111111111111111111111		(2)
	(b)		eve some pizzas delivered to his house.	
		How many pizzas did h	e order?	
		Answer		
				(2)

4. Here is a bus route and a fares table.

otherham	Hospital	Whiston	Bramley	Maltby
		ne Hospital to Malt		(
(b) Jon trave he receiv		ramley. He pays w	ith a £5 note. How much	
(c) A child p			cost for an adult and two	
	om Bramley to Maltby?			
	Ans	wer £		(Total 5 mar

Find th	ne total amount Bethany received from sel	lling the cakes.	
			••••
		Answer £	•••••
	•	Allswei L	(Total 4 ma
		Chargos	
Part of	the charges sign at a museum is missing.	Charges	
		Adults £3	
		Children £1.	
The to exactly	tal charge for one adult and two children in £6.	is	
Use th	e information on the sign to work out two		
	nt sets of possible charges for one adult a		
Fill in	your answers on the receipts below.		
	·		
	1		
	Museum	Museum	
		Museum	
		Museum Adult	
	Museum		
	Museum Adult	Adult	
	Museum Adult Child	Adult Child	

5.

(Total 7 marks)

7. (a) The cost of postage depends both on the weight of the letter and whether it is sent first class or second class.

The table shows the cost of posting a letter.

Weight	Up to 60 g	60 g and up to 100 g	100 g and up to 150 g	150 g and up to 200 g
First Class	28p	42p	60p	75p
Second Class	20p	34p	46p	56р

Find the total cost of sending:

(b)

(c)

three first class letters, each weighing 40 g,	
one second class letter weighing 110 g,	
and two first class letters, each weighing 175 g.	
Answer £	(4)
Simon buys some stamps. They cost him £3.74 He pays with a £10 note. How much change does he receive?	
Answer £	(1)
This change is given in the smallest number of notes and coins.	
How is the change given?	
Answer Notes	
Coins	(2)

(4)

(Total 3 marks)

8. (a) Complete the shopping bill.

		£	p
Onions 4 kg at £0.79 per kg			
Apples 3 kg at £1.96 per kg			
Lemonade 5 bottles at £0.85 per bottle			
	Total		

(b) Adam buys 9 pens at 57 pence each.
He pays with a £10 note.

How much change does he receive?

Answer £

(2)

(Total 6 marks)

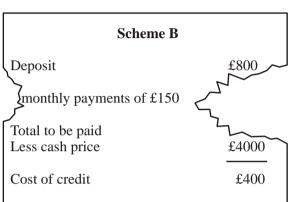
9.	A school shop buys 400 pens for £36. The shop sells the pens for 10p each. How much profit does the shop make when it sells all the pens?
	Answer £

10. A car dealer is offering two different schemes to buy a car. Some parts of Scheme B are missing.



CASH PRICE £400

Scheme A		
Deposit	£1200	Dep
12 monthly payments of £250	£3000	}m(
Total to be paid Less cash price	£4200 £4000	Tota Less
Cost of credit	£200	Cos



Work out the total to be paid using Scheme B.	
Answer £	(
Week out the annelse of monthly assuments using Cohema D	
Work out the number of monthly payments using Scheme B.	
Answer	
Allswei	(
(Total 3 m	ark

2 courses for £7.95

Main CourseDessertLasagneGateauSteakFruit

Pizza

When there are more than 10 people in a group there is a reduction of £1.50 per person.

(a) Dianne chooses Lasagne followed by Gateau. Her choice is shown in the table.

List, in the table, all the possible choices of main course and dessert.

Main Course	Dessert
Lasagne	Gateau

(b)	There are 16 people in Dianne's group.
	As there are more than 10 people in the group, there is a reduction of £1.50 per person
	Calculate the total cost of the meal for the 16 people.

Answer £

(3)

(Total 5 marks)

12. The cost of a new house is made up of two parts.

Cost of land	£75 000	
Building cost	£130 per square foot	6

	er buys the land and builds a house. it for £350 000. How much profit is	s made by the builder?	
	Answer £ .		
) This is a	ant of Soui's alastnisity bill		(Total 4 marks
3. This is p	part of Sari's electricity bill.		
	OHM Electricit	y Company	
	Present reading	7466 units	
	Last reading	6942 units	
	Each unit co	sts 4.5p	
How mu	uch does she pay?		
•••••		unswer £	
		miswei z	(Total 4 marks
	n has £1.65 ki has 75p		
How m	nuch must Sam give Vicki so that	they each end up with the sa	ame amount?
		rpe	

15.

Here is a route map of the M62 motorway. The distances, in miles, between four cities are shown on the map.



Complete the following table to show the distances between these cities.

Liverpool				
35	Manchester			
80		Leeds		
		60	Hull	

16. Fred and Susie each choose a number.
Fred's number is three times bigger than Susie's number.
The difference between the numbers is 70.

What numbers did F	red and Susie choose?
Answer	Fred's number Susie's number

(Total 3 marks)

17. The following tiles fit into the grid below so that the column and row totals add up to the

numbers shown.

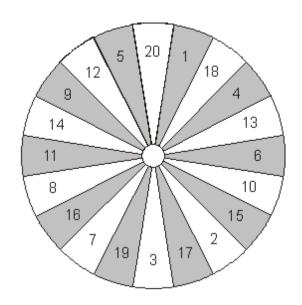
5	4	2	1	9	6
1	2	4	5	8	7
3	8	4	2	3	6

The two shaded tiles have been fitted for you.

Fit the other four tiles into the grid.

							Total
					2	1	18
					4	5	25
	5	4					35
	1	2					24
Total	11	13	19	17	23	19	

(Total 3 marks)



The numbers 1 and 18 are next to each other. (a) They add up to 19.

Which **three** other pairs that are next to each other add up to 19?

Answer	 and
	 and
	 and

Answer and

(3)

(b)	Which two numbers that are next to each other have the largest difference?

(1)

The numbers 20 and 3 are opposite each other. (c) They add up to 23. One pair of opposite numbers add up to a square number.

Which pair of opposite numbers add up to a square number?

•••••	 	 •••••	

Answer and

(1)(Total 5 marks)

19. Below is the calendar for the first two months of 2008.

		Jen	iery	200I				F	ebri	ивгу	200		
M	T	W	T	F	5	5	M	T	W	T	F	5	5
	1	2	3	4	5	6					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28	29		

Three friends Tom, Dick and Harry were all 16 this year. Tom had a birthday in February. Dick and Harry had birthdays in January. Dick is exactly 7 weeks older than Tom. Dick is 10 days younger than Harry.

When are their birthdays?		
Answer	Tom	
	Dick	
	Harry	(Total 2 marks)

Success:	Target:

Teacher Assessment



(4)(Total 6 marks)

Section D C Grade Functional Number Problems Grade C

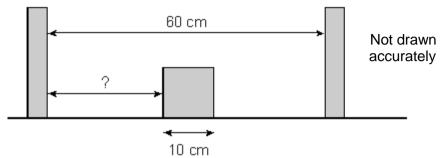
Barbara uses her car to work as a volunteer driver at her local hospital.
 She is paid 40 p for every mile she drives.
 On average she drives 2000 miles each month.
 Here is some information about the running costs of Barbara's car.

Fuel consumption	50 miles per gallon
Other running costs	10 pence per mile

(a)	Petrol costs £5 per gallon	
	Calculate Barbara's annual fuel bill.	
	Answer £	
		(2)
(b)	After paying for fuel and other running costs, Barbara saves the money left over. Barbara is planning to use this money for a holiday that will cost £3000. Will Barbara have enough money after saving for one year?	

2. Two posts are 60 centimetres apart.

A block, 10 cm wide, is placed exactly half way between them.



What is the distance between the block and one of the posts?

Answer	cm

(Total 2 marks)

3. In the following calculations each letter represents a different digit.

 $A \times A = BC$

 $BC \times BC = DEC$

Which digit does each letter represent?

•••••	 	•••••	

Answer

(Total 3 marks)

4.	Mike took 400 books to sell at a Saturday market
	By 3 pm, he had sold 310 books at 80 pence each.

Mike then reduced the selling price of the remaining books to 50 pence each. He was left with 24 unsold books which he gave away.

Find the total amount Mike received from selling the books.		

(Total 4 marks)

5. People in the country of Brownland have to pay income tax on the money they earn as shown.

Earnings (£)	Tax to pay
0 – 5000	NIL
Over 5000	20 % on all earnings over £5000

Examples		
Earnings (£)	Tax to pay	
4000	NIL	
13 000	20 % of £8000	

Answer £

Lynn earns £28 000.

Work out the amount of tax that Lynn pays.

(Total 3 marks)

6.	Matthew is	investigating	the costs of	f using a	mobile phone

Which method is cheaper, 'Contract' or 'Pay as you go'?

He finds that there are two methods of paying for his phone calls.

Contract

£14 a month fixed charge

30 minutes of free calls then 10p per minute

Pay as you go

No fixed charge

No free minutes 40p per minute

Matthew expects to spend 150 minutes using a mobile phone each month.

You must show your working.	
	Answer

St Paul's Catholic School 25

(Total 4 marks)

7.

Here is an advert for a summer holiday.



Summer Sun Fantastic deals with Sunbreaks Holidays



Dates	7 nights	14 nights
1 April – 30 April	£315	£575
1 May - 6 July	£220	£400

Notes

- o Prices are for one adult (16 years and over)
- o Children (less than 16 years) 75% of adult price
- o 10% discount if booked online (www.sunbreaks.co.uk)

(a)	Martha books a 14-night holiday in May. She books for herself, husband Billy and daughter Mary (aged 11). She books the holiday online.		
	Explain clearly why the total cost will be	E:99	0.
			(4 marks)
		1	
Succ	ess:		Target: