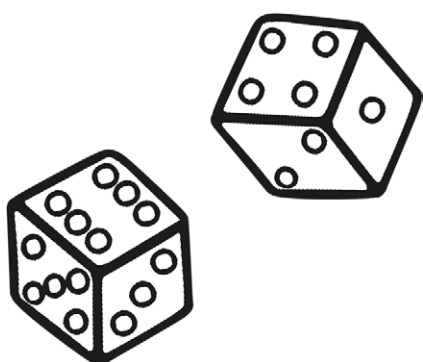


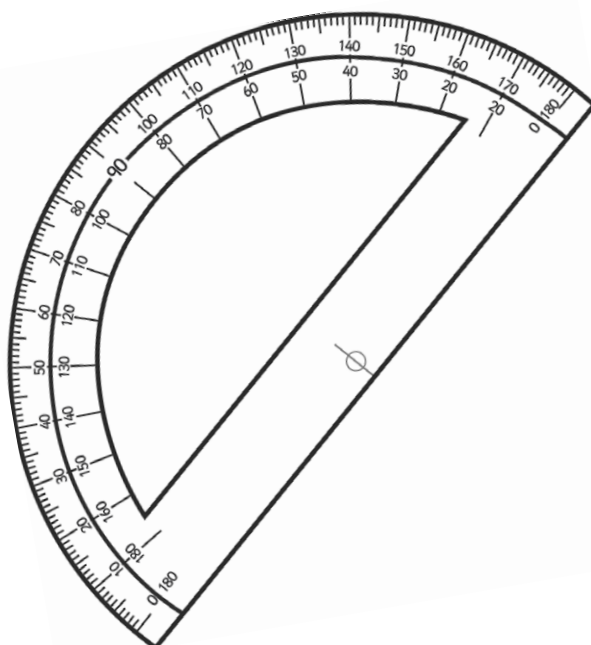
Year 6

Number and Place Value

Workbook



1
2
3



Home Learning Year 6 Maths Workbook Pack

Year 6 Programme of Study – Number and Place Value

Statutory Requirements	Worksheet	Page Number	Notes
Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit	Ordering Numbers Writing Numbers to 1 000 000 in words Place Value to 10 000 000	3 - 5 6 - 7 8 - 9	
Round any whole number to a required degree of accuracy	Round any Whole Number to a Required Degree of Accuracy Worksheet.	10	
Use negative numbers in context, and calculate intervals across 0	Calculating Intervals Across 0 Worksheet.	11	
Solve number and practical problems that involve all of the above	Rounding Using Real Life Situations	12 - 13	

Ordering Numbers to 100 000

Fill in the spaces below with the numbers in order from smallest to largest.

22 212



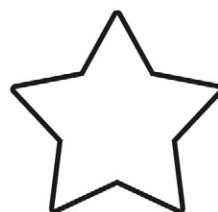
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12 201



12 022



21 220



76 767



67 767



67 677



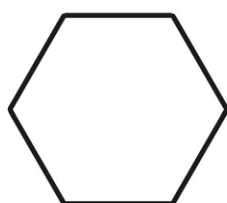
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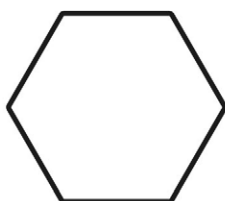
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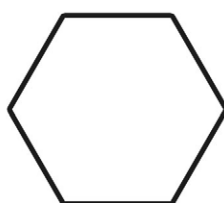
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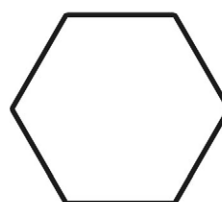
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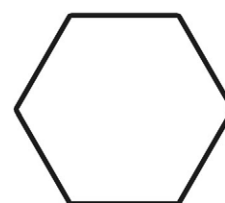
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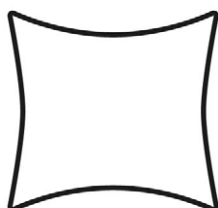
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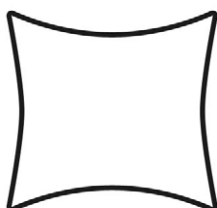
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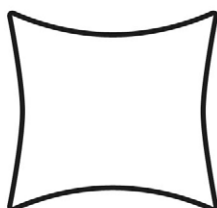
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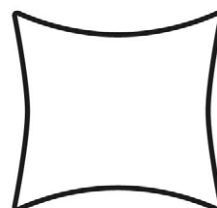
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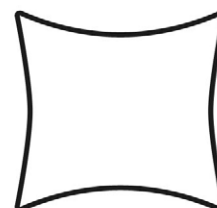
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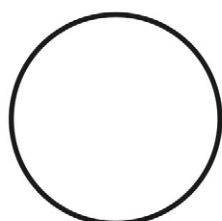
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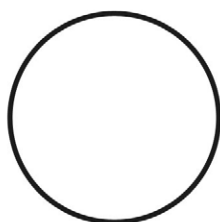
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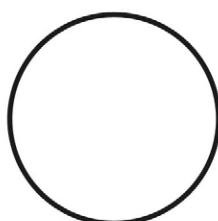
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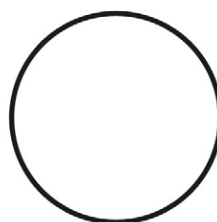
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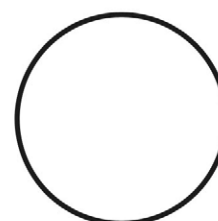
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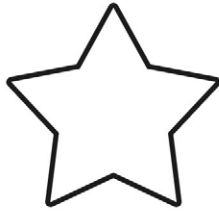
Ordering Numbers to 1 000 000

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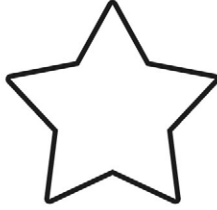
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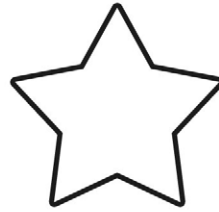
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966 659



966 569



787 778



787 787



788 788



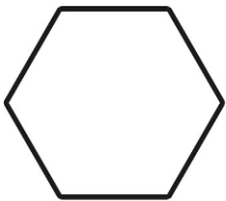
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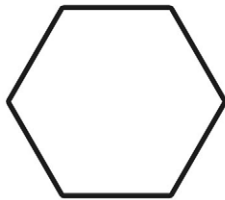
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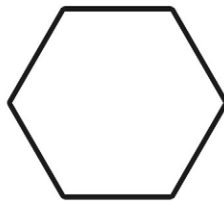
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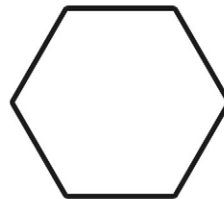
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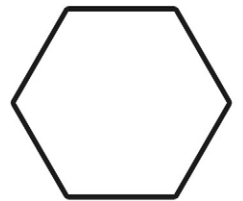
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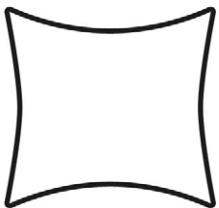
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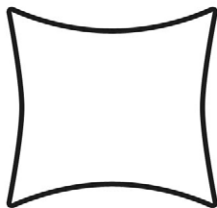
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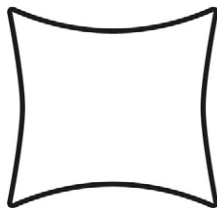
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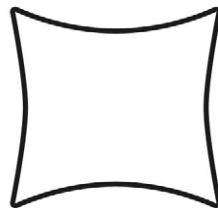
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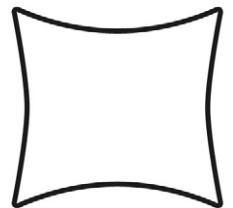
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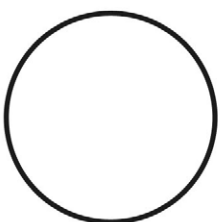
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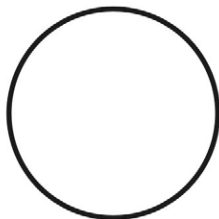
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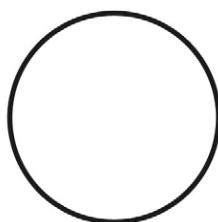
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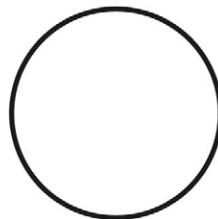
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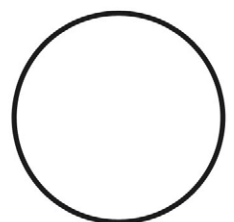
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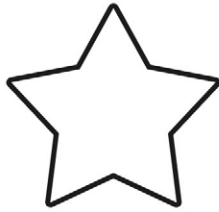
Ordering Numbers to 10 000 000

Fill in the spaces below with the numbers in order from smallest to largest.

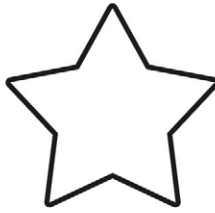
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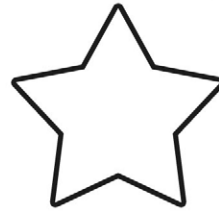
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345 354



4 453 534



454 543



707 700



7 707 007



7 777 707



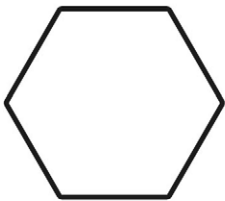
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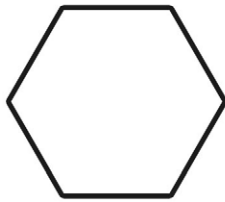
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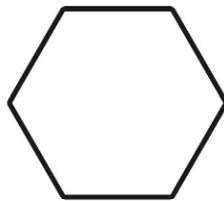
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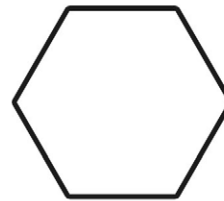
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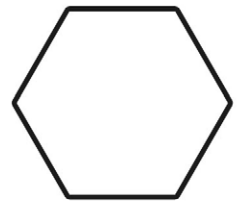
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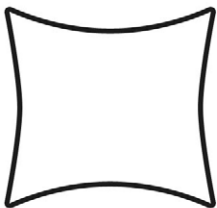
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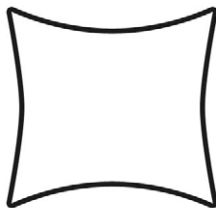
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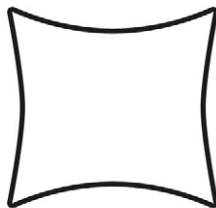
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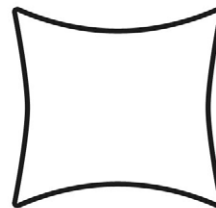
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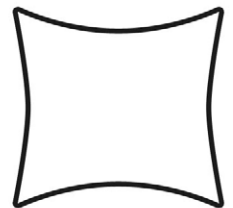
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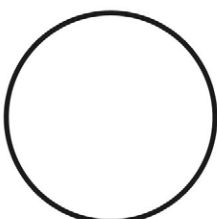
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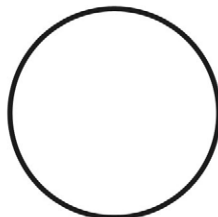
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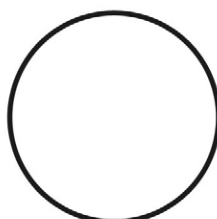
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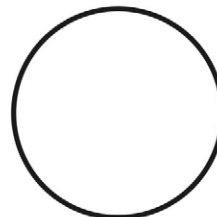
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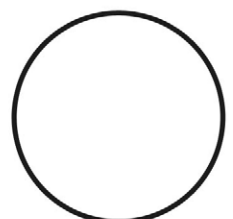
111 110



10 000 000



1 110 100



Writing Numbers to 10 000 000 in Words

Write the following numbers in words:

263 443	Two hundred and sixty three thousand, four hundred and forty three
516 283	
787 865	
3 883 091	
7 060 696	
10 000 000	
8 589 130	
1 645 099	
9 840 781	
5 709 118	

1 645 099	
9 840 781	
5 709 118	
7 112 098	
2 245 590	
9 390 519	
1 101 010	

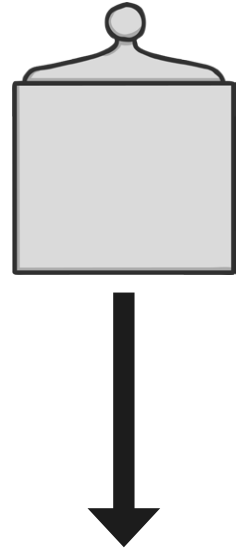
Challenge

Can you add 2 of these numbers together using the number written in words? How would you set out the calculation?

Place Value to 10 000 000 Worksheet

We can think of big numbers being made up of smaller numbers squashed together. For example – the number 8 596 742 can be partitioned like this:

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Units
8	0	0	0	0	0	0
	5	0	0	0	0	0
		9	0	0	0	0
			6	0	0	0
				7	0	0
					4	0
						2



Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Units
8	5	9	6	7	4	2

Eight million five hundred and ninety six thousand, seven hundred and forty two.

A. For each of the following numbers can you identify what the underlined digit is actually worth?
Use the place value chart to help you.

1. 802 137 =

2. 3 835 579 =

3. 4 027 342 =

4. 5 183 637 =

5. 5 593 356 =

6. 8 502 872 =

7. 8 551 595 =

8. 9 513 813 =

- B.** Can you squash these numbers together to make one number and then write the number in words? Use this place value chart and a rubber or draw your own place value chart to help you.

e.g. 10 000, 60, 5 000 000, 9, 400 000 =

5 410 069

Five million four hundred and ten thousand and sixty nine

1. $7 + 8000 + 90 + 3\,000\,000 =$

2. $60\,000 + 70 + 4\,000\,000 + 900\,000 + 500 =$

3. $30 + 60 + 7 + 400\,000 + 70\,000 =$

4. $8\,000\,000 + 100\,000 + 60\,000 + 200 + 2 + 60 =$

5. $6 + 6\,000\,000 + 8000 =$

- C.** Challenge - Can you squash together some of these numbers to make the closest possible number to those listed below?

300	3 000 000	2	20	7 000 000
50	7000	20 000	900 000	
10 000	6	4000	800	500 000

Number	Closest Possible Number I Can Make
540 789	
7 668 232	
3 917 433	

Round any Whole Number to a Required Degree of Accuracy Worksheet

- A. For each of these numbers, fill out the table by rounding the original number to the required degree of accuracy.

Number	Rounded to Nearest Ten	Nearest Hundred	Nearest Thousand	Nearest Ten Thousand	Nearest Hundred Thousand	Nearest Million
5 658 485						
34 745 123						
56 830 879						
50 313						
776 927						
379 298 845						
4 448 529						
99 999 999						

- B. The table below shows the results after some numbers have been input into a rounding machine. Can you write a number which **could** have been put in to the machine to achieve the output number?

Output	Function Selected	Possible Input
57 000	Round to nearest thousand	
1 000 000	Round to nearest million	
2 345 890	Round to the nearest ten	
6 450 000	Round to the nearest ten thousand	
77 200 000	Round to the nearest hundred thousand	
680 000 000	Round to the nearest ten million	

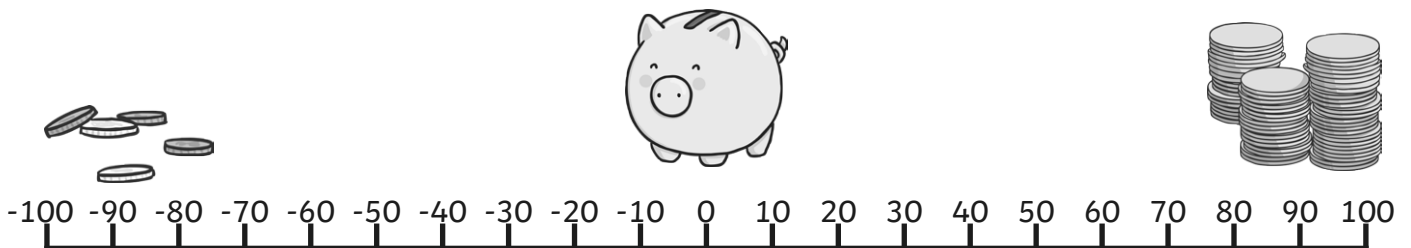
Calculating Intervals Across 0 Worksheet

- A.** Look at the table below and the difference required between each number and the new number. Find the appropriate answer and join them with a line.

The first one has been done for you.

Start	+5	-17	+22	-31	+26
6	-5	-22	0	-15	22
17	11	-4	7	-24	-5
-10	22	-15	16	-13	11
8	2	5	27	-31	2
-3	13	-6	18	-4	13

- B.** Practice calculating across 0 by answering these questions based on bank balances and finances.



- Hassan had £45 in the bank and then bought a football kit for £67. By how much was he overdrawn?
- What would my overdraft be if I spent £267 on a holiday but I only had £135 in the bank?
- Magda's mum said she could spend £90 for her birthday. She bought a pair of roller skates for £59 and a pair of shoes for £43. How much did she owe her mum?
- Mr. and Mrs Dennis had £325 in their bank account. At the beginning of the month they had to pay their regular bills. Their telephone bill was £96, their gas bill was £146 and their electricity bill was £129. How much did they have to pay into their account to pay off their overdraft?

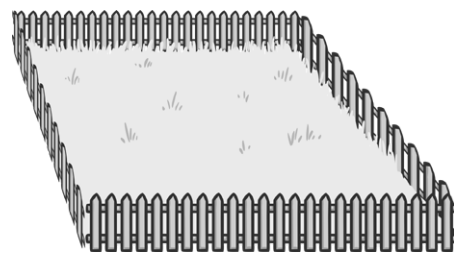
Using Rounding in Real Life Situations

Sometimes in life situations, getting a quick answer is more important than achieving complete accuracy. Additionally, in some cases the nature of a problem will require some rounding to achieve a correct answer.

Use your rounding skills for the questions below; (please note: however, that as the answers are based on rounding and estimates, they may differ to yours slightly!)

A shop sells material in 1 metre lengths. A dress maker needs 3 lengths of material which are the following lengths – 88cm, 189 cm and 80 cm. How many metres of material should she buy?

Imagine you have to make a quick estimate of the length of a fence that will be required to surround a field. The owner wants an idea of a price straight away. How close can you get in 10 seconds? Rounding will help. Side 1 = 1756cm Side 2 = 1678 cm Side 3 = 1419cm Side 4 = 1949cm



Votes are being counted in the election and the Red Party candidate wants to have an idea of whether he has won or lost. Can you round the numbers and add them quickly to give him the likely news?

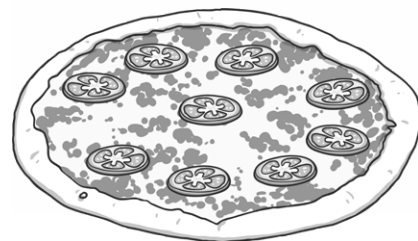
	Area 1	Area 2	Area 3	Area 4	Area
Red Party	12 345	9876	15 499	6701	11 282 55
Blue Party	8781	14 456	16 221	5207	8871

Winning Party =

By approximately

votes.

Karim decides to organise a pizza party for his friends. He decides that everyone will eat a whole pizza and he wants to invite 63 friends. If the pizzas cost £2.50 per person but the bank only allows withdrawals in multiples of £10, how much should he withdraw from the bank?



1. David wants a quick estimate of the amount he has earned in the last year to start calculating his tax. Working as quickly as you can, can you give him a rough estimate of David's earnings on

Job	Post Office	Office	Cleaning
Income	£12 756	£9452	£2754

Answer =

David's behalf?

2. Beneath is a list of Gregor's monthly outgoings together with the wage he would be paid for a new job. Can he afford to take the new job? Work it out as quickly as you can because they are waiting for his answer.

Rent	£529	Gas and Electric	£107	New Wage
Petrol	£77	Telephone and Broadband	£38	£1458
Food	£371	Clothes	£67	
Council Tax	£115	Leisure expenses	£82	

Rounded cost of living per month =

Can Gregor afford to take the new job?