Write your name and your teacher's name.	**TIME** 1 hour 30 minutes	*Paper 4 of 5 from ZigZag Education*
Sample GCSE Examination Paper **Foundation Tier Calculator Paper**	Standard Equipment: pen, pencil, ruler, protractor, compasses, calculator.	

1 **(a)** Write down all of the factors of 30.....Answer ..... [2]

(b) Write down all the common factors of 24 and 36

Answer ..... [2]

(c) Write the number 8956 in words

..... [1]

(d) Write down 8956 to the nearest 10 Answer ..... [1]

(e) Write down what the 5 stands for in 8956 Answer ..... [1]

2 **(a)** Write down the next two numbers in this number sequence.

2, 9, 16, 23, ... [1]

(b) Write down the rule that you used to find the next two numbers.

.....

..... [1]

3 George had £300 in his bank account. He spent £136 of this money.

(a) How much did he have left?.....Answer ..... [2]

George buys eight stamps. Each stamp costs 37p. He only has a £5 note.

(b) How much change does George get?

.....

.....Answer ..... [2]

The next day, George returns with £10.

(c) What is the maximum number of 37p stamps that George can buy with this money?

.....Answer ..... [2]

4 **(a)** A circular cake weighs 136g. A slice is cut from the cake.
The slice is $\frac{3}{8}$ of the original cake.

What is the weight of the slice?

.....Answer ..... [2]

(b) Three parcels weighed 56kg, 73kg, and 95kg.
(i) Work out the total weight of the parcels.

.....Answer ..... [1]

(ii) What fraction of the total weight is the 56kg parcel?

.....Answer ..... [2]

5 Solve the following equations.

(a) $3x = 18$ Answer x = ... [1]

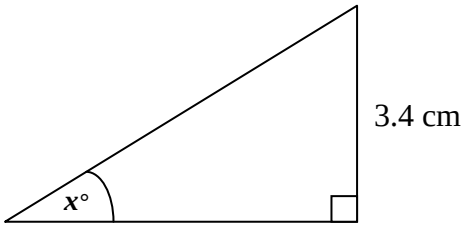
(b) $y + 5 = 12$ Answer y = ... [1]

Simplify the following expressions.

(c) $m + m + m - m + m$ Answer ..... [1]

(d) $3n - 4n + 5n - 6n$ Answer ..... [1]

6 Here is a right angled triangle.



Not drawn accurately

(a) Make an accurate drawing of the triangle. [3]

(b) On *your* drawing, measure the size of the angle marked ***x***. Answer ..... [1]

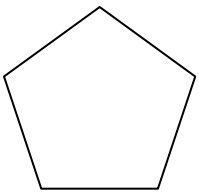
(c) Calculate the area of the triangle.

.....

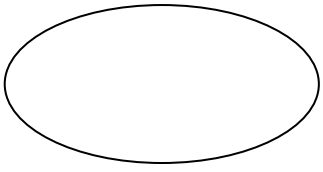
.....Answer ..... [2]

7 Draw on all the lines of symmetry of the following shapes.

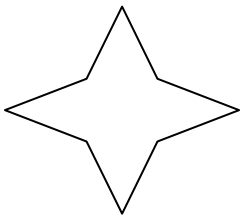
(a)



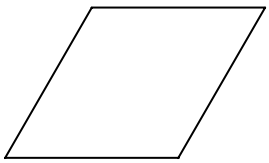
(b)



(c)

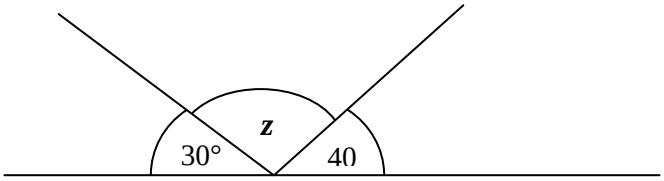


(d)



[4]

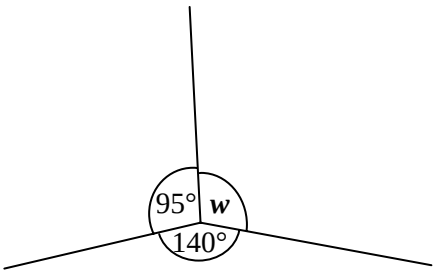
8 **(a)** Calculate the angle marked ***z*** below.



.....

.....Answer ..... [2]

(b) Calculate the angle marked ***w*** below.



.....

.....Answer ..... [2]

9 **(a)** A multipack of crisps contains three salt and vinegar packets, three cheese and onion packets, four ready salted packets, and two smoky bacon packets.

One packet of crisps is opened at random from the multipack.

(i) What is the probability that this packet contains ready salted crisps?

Answer ..... [1]

(ii) What is the probability that this packet contains either salt and vinegar or cheese and onion crisps?

.....Answer ..... [2]

(iii) What is the probability that the packet does not contain smoky bacon flavoured crisps?

.....Answer ..... [2]

(b) Here are six numbers

39, 81, 52, 90, 15, 38

(i) What is the mean of these six numbers?

.....Answer ..... [2]

(ii) What is the median of these six numbers? Answer ..... [1]

10 Stuart had £90 at the beginning of the day. He gave $\frac{2}{5}$ of this to Paul in the morning.

In the afternoon, Stuart gave Frank $\frac{2}{3}$ of his *remaining* money.

Calculate the amount of money that Stuart had left at the end of the day.

.....

.....

.....

.....

.....Answer ..... [5]

11 Work out the following, giving all your answers exactly–

(a) $\dfrac{8.3-4.2}{0.41}$ Answer ..... [1]

(b) $\dfrac{-7.6+5.2}{17.7-8.1}$ Answer ..... [2]

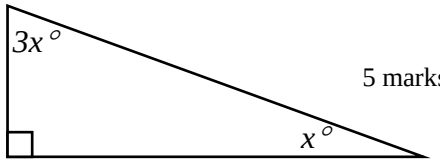
(c) $(5.2)^3$ Answer ..... [1]

For Questions 12 onwards there is no marked out space to write your answers. Where there is not enough space, write your answers on separate paper. In your actual GCSE examination, marked spaces are normally provided on the whole paper.

12. Solve the equations–
    a) $7x + 3 = -11$
    b) $q + 3 = 3q + 99$ 5 marks

13. Find the value of y when $x = -2$
    a) $y = 7 + 3x$
    b) $y = 7 - 3x$ 4 marks

14. a) Work out a formula for the angle sum of the triangle.
    b) Calculate x. 5 marks

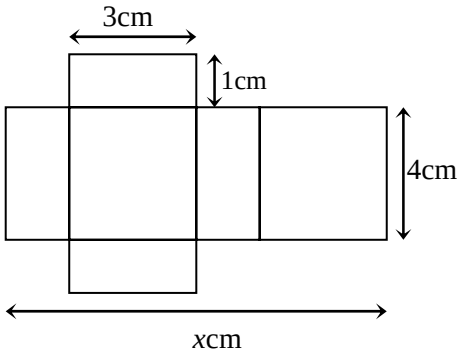


15. Work out the following giving your answer to a suitable degree of accuracy–
    (a) 1.66^3
    (b) 1.66^{11} 4 marks

16. a) Showing your working order the following fractions starting with the smallest–
    $\frac{2}{3}, \frac{1}{2}, \frac{4}{7}, \frac{5}{6}, \frac{83}{100}$.
    b) Write down a fraction which is bigger than $\frac{5}{6}$ and smaller than $\frac{6}{7}$. 6 marks

17. A car normally costs £12,000.
    Joha pays with cash and receives a 20% discount.
    Calculate the cost of the car after the discount. 3 marks

18. This is the net of a simple three dimensional solid. 4 marks
    a) Calculate the length of the net marked $x$cm.
    b) Calculate the surface area of the solid shape the net will make.



19. Calculate the missing angle *x*. 4 marks

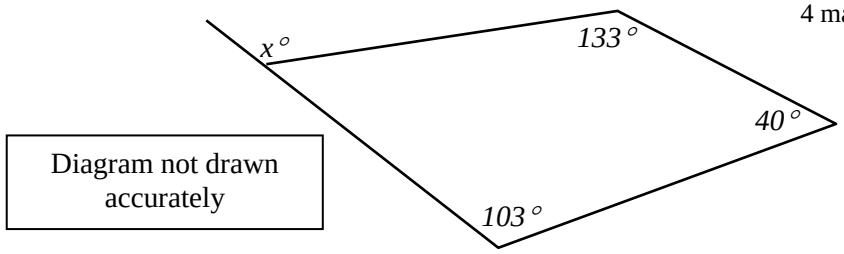


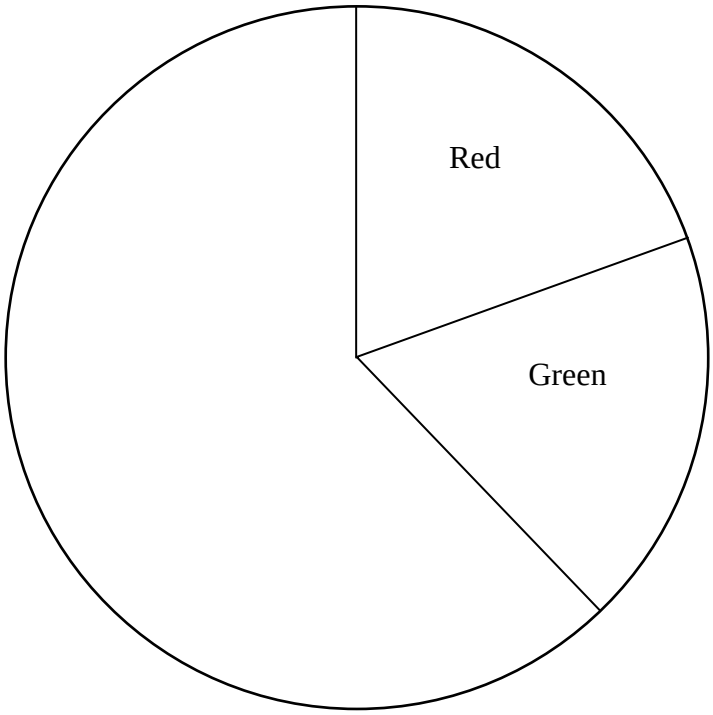
Diagram not drawn accurately

20. a) How many square metres is $1cm^2$?
b) How many square centimetres is $4m^2$? 4 marks

21. In a survey, 720 people were asked to record the colour of their cars.
Some of the information is shown in the table.

Colour of Car	Number of people
Red	?
White	126
Blue	?
Silver	148
Green	?
Other	90

The same information is also shown in a pie chart. The pie chart is incomplete. Complete the pie chart. 6 marks



How many blue cars were recorded in the survey?