

MATHEMATICS - FOUNDATION LEVEL 17394

THURSDAY, 10 JUNE - MORNING, 9.30 to 11.30

Attempt all questions.
All questions are of equal value.

Marks may be lost if necessary work is not shown.
Mathematics Tables may be obtained from the Superintendent.

1. Seven people share equally a prize of IR£41 055.
How much is each share?
2. Find the total cost of the bill below and the change received out of IR£10.
- | | |
|----------|---------|
| Tea | IR£1.23 |
| Sugar | IR£0.80 |
| Milk | IR£0.32 |
| Biscuits | IR£0.67 |
3. The following coins were saved in a "piggy-bank":
- Six 50p coins
 - Four 10p coins
 - Twentysix 5p coins
 - Eleven 2p coins
 - Ten 1p coins.
- Find the total amount of money saved.
4. (i) Write down the largest possible four figure number which can be made using all the digits
3, 9, 5, 1.
- (ii) Use all the digits 2, 5, 8, 4 to form a four figure number which can be divided by 5 with no remainder.
5. During a sale there was 20% off the marked price of all items.
If the marked price of an item was IR£45, find the sale price.

6. Find the value of

(i) $\frac{1}{5} + \frac{1}{2}$

(ii) $\frac{1}{5} + \frac{1}{2} - \frac{3}{10}$

7. Copy the table into your answerbook and complete it.

Fraction	Decimal
$\frac{1}{2}$	0.5
$\frac{1}{4}$	
	0.7
$1\frac{3}{5}$	

8. A floor is in the shape of a rectangle. It is 5 m long and 3.5 m wide.

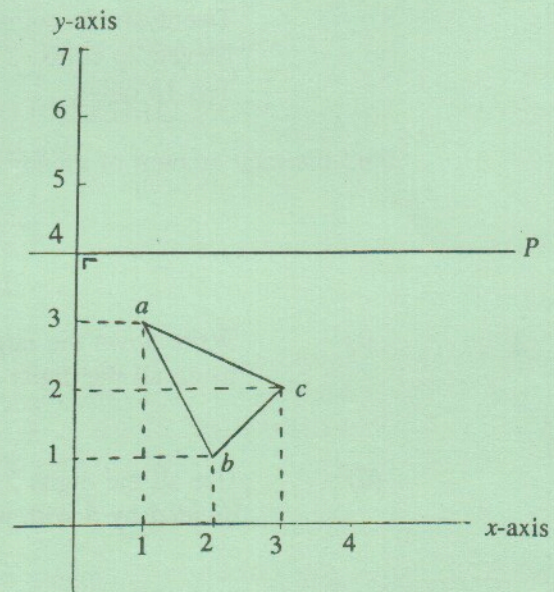
Draw a scale diagram of the floor using a scale of 1 cm for each metre.

9. (i) Solve for x if $4x + 2 = 26$

(ii) Find the value of $x^2 + 4x + 8$ when $x = 3$

10. Copy the diagram into your answerbook.

Under the axial symmetry in the line P , draw in the image of the triangle abc .



11. IR£550 was invested for two years at 10% per annum compound interest. Find the amount at the end of the two years.

12. Copy the table below into your answerbook and complete it given that $y = 2x + 1$

x	1	2	3
y			

Draw the graph of $y = 2x + 1$ from $x = 1$ to $x = 3$.
(Graph paper may be got from the superintendent).

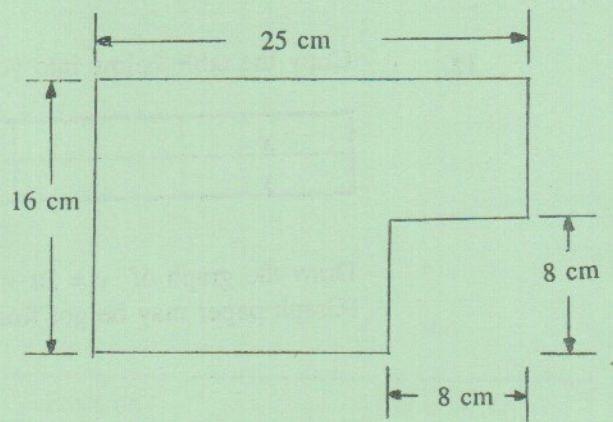
13. The following table shows the temperature in degrees Celsius in four cities at noon one day:

City	Los Angeles	Miami	Chicago	New York
Temperature	24	21	5	10

- (i) Draw a bar chart to show the above information.
- (ii) Find the average (mean) temperature of the four cities at noon on that day.
14. (i) A train departs Dublin at 1335 hrs and arrives in Wexford at 1609 hrs. Write down the length of time for the journey from Dublin to Wexford in hours and minutes.
- (ii) Another train takes the same length of time to travel from Dublin to Wexford. It arrives in Wexford at 2039 hrs. At what time did it leave Dublin?
15. (i) Draw, accurately, a triangle abc with $|ab| = 6$ cm as the base, $|\angle abc| = 70^\circ$ and $|\angle bac| = 40^\circ$.
- (ii) Measure and write down the length of $[ac]$.
16. A person has a gross yearly pay of IR£14 560. The person has a tax-free allowance of IR£7 270 and pays income tax on the remainder at the rate of 27% in the IR£.
- (i) What is the taxable pay for the year?
- (ii) Calculate the amount of income tax paid in the year.

17.

A rectangular piece of card was 16 cm wide and 25 cm long. A square, 8 cm long and 8 cm wide, was cut from one corner as shown.



- (i) Calculate the length of the perimeter of the shape in the diagram.
- (ii) Calculate the area of the shape.

18.

A bicycle wheel has a radius of length 21 cm.

- (i) Calculate the length of the diameter of the wheel.
- (ii) Find the distance moved by the bicycle if the wheel makes one full turn, taking $\pi = \frac{22}{7}$.
- (iii) Calculate how many turns the wheel makes when the bicycle moves 264 m, without slipping.

19.

An E.S.B. bill contains the following details:

Present meter reading: 41 878 units
 Previous meter reading: 41 078 units

- (i) How many units were used since the previous reading?
- (ii) The cost of this number of units is IR£57.12. What is the cost in pence of one unit?
- (iii) V.A.T. is charged on this at $12\frac{1}{2}\%$. Find the amount of V.A.T. paid.

20.

The measures of the three angles of a triangle sum to 180° . The angle in a semi-circle is a right-angle.

K is a semi-circle.
 $[pq]$ is the diameter.

Calculate the value of x .

