FORM 1   **MATHEMATICS – Scheme A**   **TIME: 45 minutes**
(Non-Calculator Paper)

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Mark																

DO NOT WRITE ABOVE THIS LINE

Name :   **Class :**

INSTRUCTIONS TO CANDIDATES

- **Answer all questions.**

- **This paper carries 40 marks.**

- **Calculators and protractors are not allowed.**

1. Write this number in words: **2 100 000**

_____

_____ (*1 Mark*)

2. **Put in order**, starting with the smallest.

   one million 10^8 ten thousand 10^5

   _____   _____   _____   _____

_____ (*2 Marks*)

3. **Work out:**

   (a) 400×2800

   _____

   (b) $16000 \div 400$

   _____

_____ (*2 Marks*)

4. Complete:

   (a) $60 \times$ ………… $= 4200$

   (b) …………………… $\div 300 = 7200$

_____ (*2 Marks*)

5. This mp3 player is marked **Lm37**.
   When I buy this mp3, I am given a 25% discount.
   (a) How much money do I **save**?

   Lm_____

   (b) How much do I **pay** for the mp3?

   Lm_____

_____ (*3 Marks*)

A

6. At a toy shop, a crane costs **Lm27**, a football costs **Lm11** and a train set costs **Lm31**. John has only **Lm40** saved.
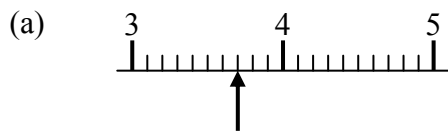
   (a) Which **two** toys can he buy?

   _____ **and** _____

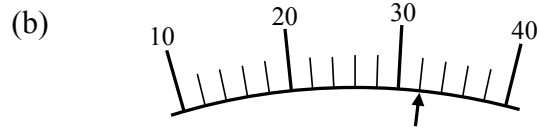   (b) What **change** does he get?

   Lm_____

   (c) How much more money does he need to buy the **third** toy?

   Lm_____

   (3 Marks)
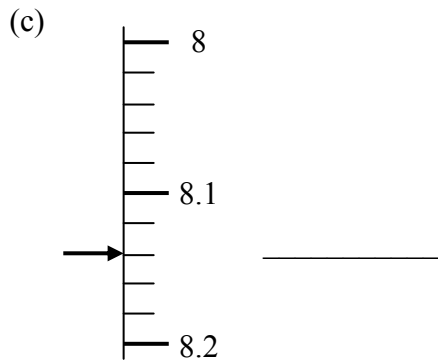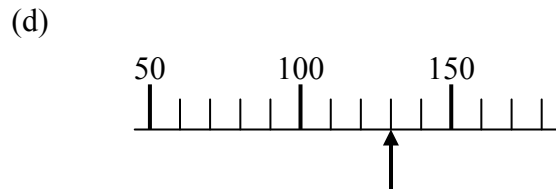
7. **Read** the following scales.

   (a) 3   4   5

   _____

   (b)   20   30
        10   40

   _____

   (c) 8

        8.1

        _____

        8.2

   (d) 50   100   150

        _____

   (4 Marks)

8. (a) Write the first six **prime** numbers.

   _____ _____ _____ _____ _____ _____

   (b) Write 270 as the **product** of its prime factors.

   _____

   (4 Marks)

9. **Work out:**

(a) $\dfrac{8}{9} \times \dfrac{3}{16}$

_____

(b) $\dfrac{3}{4} - \dfrac{1}{5}$

_____

(c) Moira finished $\dfrac{1}{3}$ of her homework before 5:00 p.m.

She then finished $\dfrac{2}{5}$ of her homework before watching her favourite TV programme.

What **fraction** of her homework was ready by then?

_____

(*4 Marks*)

10. A hiker left home at **06:15**.
She stopped at **10:35** and rested for **40 minutes**.
She then walked for another **two hours** and arrived at Mellieħa.

(a) **At what time** did she arrive at Mellieħa?

_____

(b) **How long** did the whole journey take?

_____**hours**_____**minutes**

(*4 Marks*)

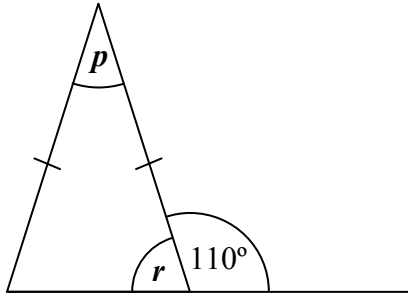11. John uses **0.98 litres** of petrol everyday to drive to work and back.
He does **not** work on weekends.

How much petrol does he use, **per week**, to drive to work and back?

_____**litres**

(*3 Marks*)

12.

Calculate:

(a) angle **r**

_____°

(b) angle **p**

_____°

(2 Marks)

13. Work out the following:

(a) $(-2) + (-4)$

_____

(b) $(-6) \times (-4)$

_____

(2 Marks)

14. Mario shares **Lm68.31** equally among **4** friends.

Calculate to the nearest **Lm**, how much **each** friend gets.

Lm_____

(2 Marks)

15. Work out:

$$2 \times (2 + 3)^2 - 5$$

_____

(2 Marks)

END OF PAPER

FORM 1					**MATHEMATICS – Scheme A** **(Main Paper)**								**Time: 1h 15min**		

Question	1	2	3	4	5	6	7	8	9	10	11	12	Total Main	Non-Calc.	Global Mark
Mark															

DO NOT WRITE ABOVE THIS LINE

Name : _____   **Class :** _____

ANSWER ALL QUESTIONS.

1. Write these numbers in **figures**:

    (a) Forty six thousand, two hundred and four.   _____

    (b) Thirty two million, one hundred thirty two thousand and thirty two.

    _____

    (2 Marks)

2.

    An economy pack of soft drinks consists of **six** cans.

    4 classes of **25** students each are going for an outing.

    How many **packs** are needed to give a can to each student?

    _____ **packs**

    (4 Marks)

3. Put these fractions **in order**, smallest first:

    $$\frac{3}{4}, \quad \frac{9}{10}, \quad \frac{5}{8}, \quad \frac{21}{25}$$

    _____ _____ _____ _____

    (4 Marks)

4.   (a) Joe has a plank of wood that is **330 cm** long.

He cuts off $\frac{2}{5}$ of it.

How long is the piece of wood he cuts off?

_____cm

(b) Peter has a plank of wood that is **220 cm** long.

He cuts off $\frac{3}{5}$ of it.

How long is the piece of wood he cuts off?

_____ cm

(c) What can you say about Joe's and Peter's planks of wood?

_____

_____ (*5 Marks*)

5.   Sketch the diagram that Janet sees when she enters these **LOGO** commands.

PD
FD 100
RT 90
FD 50
LT 90
FD 50
LT 90
FD 50

_____ (*3 Marks*)

6. My grandfather uses this **formula** to calculate how much bird seed he needs every day:

$$g \;=\; 20 \;\times\; number\ of\ birds \;+\; 30$$

where g = amount of bird seed in grams.

(a) He has **35** birds in his aviary.
How many **grams** of bird seed does he use every day?

_____grams

(b) Last March he used **870 grams** of bird seed every day.
How many **birds** did he have in March?
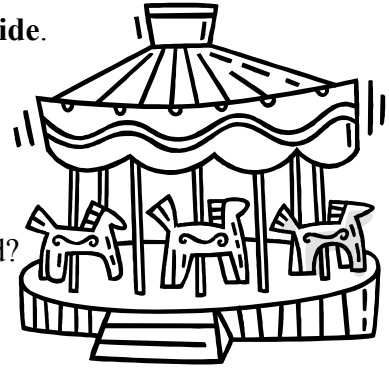
_____birds

_____ (*6 Marks*)

A 7. The model of a merry-go-round is **as high as it is wide**.

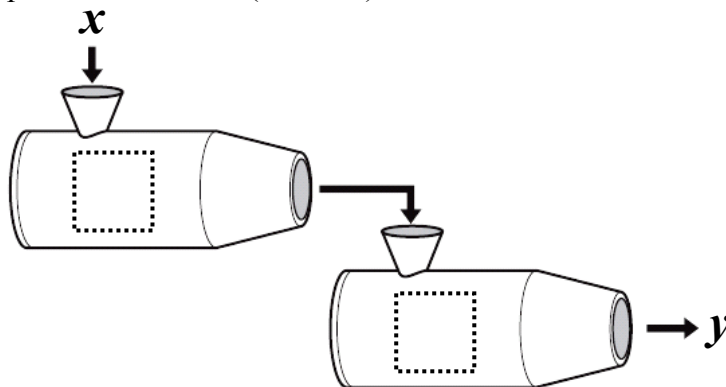It is built on a scale of **1 : 20**.

The height of the model is **30 cm**.

(a) What is the actual height of the merry-go-round?

_____**cm**

(b) What is the actual **radius** of the merry-go-round?

_____**cm**

(*4 Marks*)

8. The diagram represents a number (function) machine.

x

y

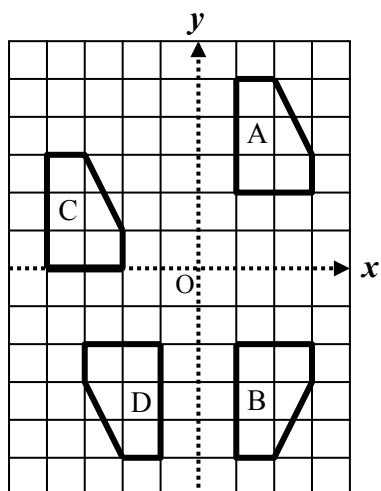Here is the table for the **two-stage** number machine:

Input *x*	Output *y*
1	6
2	11
3	16
4	21

(a) **Complete** the number machine by filling in the **dotted boxes** with a function.

(b) Use the letters *x* and *y* to write down the **rule** of this number machine.
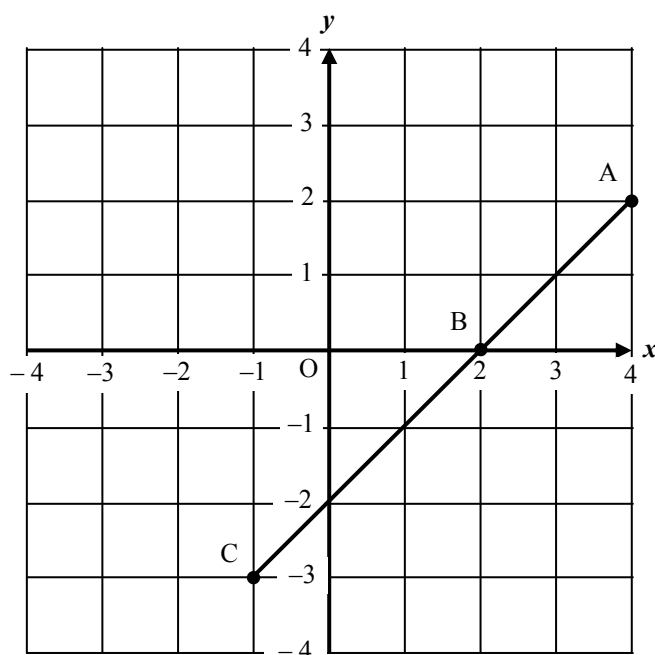
_____

(*6 Marks*)

9.

Describe **fully** the single transformation that will take you from the **first** shape to the **second** shape:

(a) A to B _____

(b) A to C _____

(c) B to D _____

(6 Marks)

10.

The diagram shows a line graph.

(a) Write the **co-ordinates** of A, B and C.

A (,)

B (,)

C (,)

(b) Give the **co-ordinates** of another point on the line graph.

(,)

(c) **Which** of the following graphs is shown in the figure?
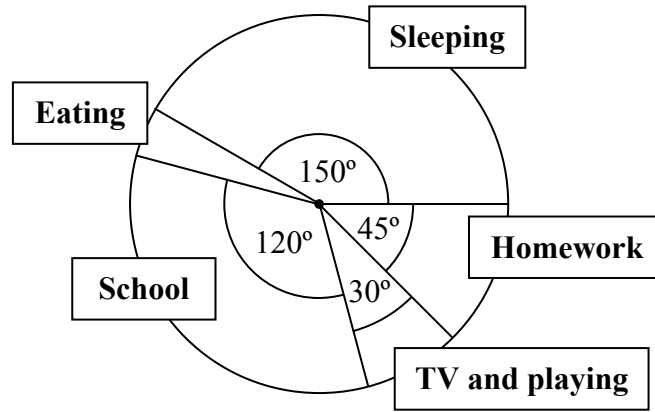
(i) $x + y = 2$

(ii) $x - y = 2$

(iii) $y - x = 2$

(6 Marks)

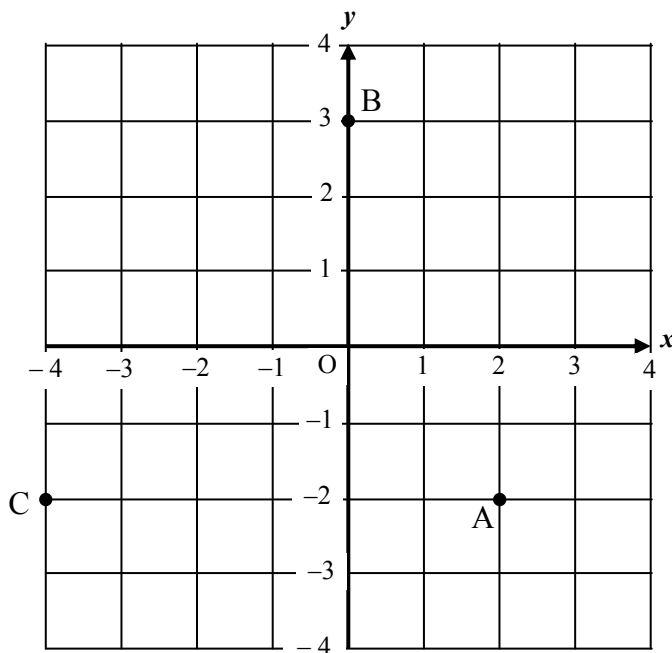11. The **pie chart** below represents Daphne's daily activities.

(a) How many hours does Daphne spend **sleeping**?

_____

(b) How many hours does she spend **eating**?

_____

(c) How many hours does she spend at **school** and doing her **homework**?

_____

(6 Marks)

12.

(a) **Plot** these points and **label** each with its letter:

D (−3, − 4) E (1, − 4)

F (3, − 2) G (0, − 2)

(b) **Join**: A B C D E F G C

(c) On the grid each side of a square represents **1 cm**.
What is the **total area** of the sails?

_____ **cm²**

(8 Marks)

END OF PAPER