Time allowed 2 hours 30 minutes

INDEX NO:

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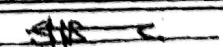
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READ THE FOLLOWING INSTRUCTIONS CAREFULLY

Turn Over

Section A (40 Marks)

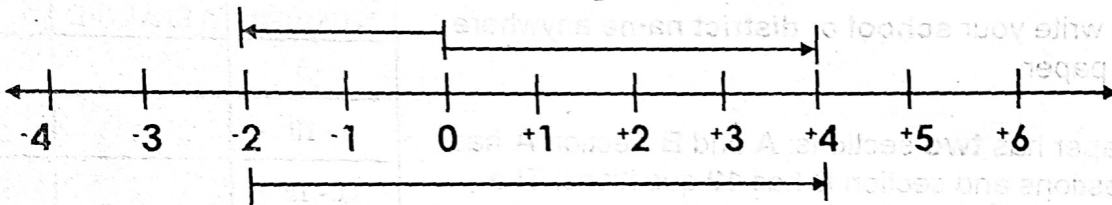|	
1. Workout: 78 × 0	**2** Describe the shaded part in the venn diagram below.
3. Simplify: 2k – 7k + 8k.	**4** Without division, show which of the numbers 7050 and 1203 is divisable by 6.
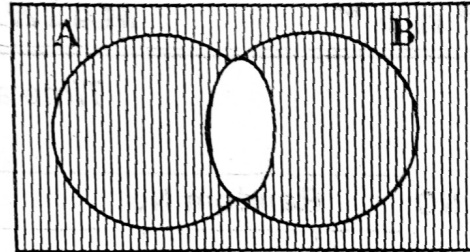
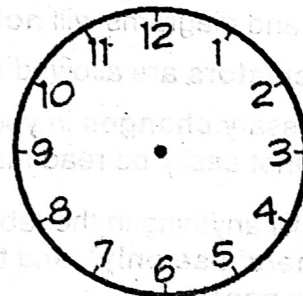**5** Write the mathematical statement represented on the number line below.

6. Work out: 0.75 ÷ 0.25	**7** Show "ten minutes to 6" on the clock face below.

8	A mass of 12kg was re-packed using $\frac{3}{4}$ kg sachets. Find the number of sachets got.	9	Workout : $101_{two} + 11_{two}$
10	Decrease 80 by $12\frac{1}{2}\%$.	11	A dice was tossed once. What is the probability that a prime number will appear on top?
12	In the triangle below find the value of e in degrees.	13	The prime factors of 18 and 30 are given below. $18 = 2 \times 3^2$ $30 = 2 \times 3 \times 5$ Find the GCF of 18 and 30.
14	The perimeter of a square garden is 72m. Find the length of each side of the garden.	15	Find the perimeter of the quadrant below.(use $\pi = \frac{22}{7}$)
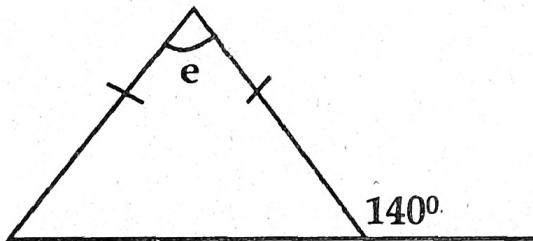
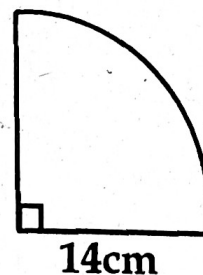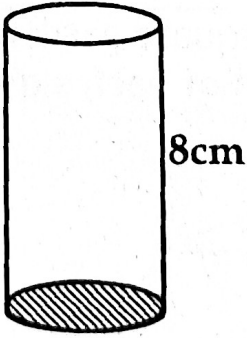| 16	Solve: $2 - x \le 5$	17	A motorist travels 72 km in 45 mins. Find the speed of the motorist in km/hr.

18	Using a ruler, a sharp pencil and a pair of compasses only, construct an angle of 120^0.

19	The cost of a book from a certain supermarket is **sh.800**. Find the number of books a pupil will buy with **sh.18400**.	20	The base area of the cylinder below i 154cm². Calculate the radius of the cylinder. (Take $\pi = \frac{22}{7}$) 8cm

Section B (60 Marks)

21 In a class of 41 pupils, 30 play football (F), 13 play netball (N) t play both games while 3 do not play any of the two games.

(a) Complete the Venn diagram below. **(02 marks)**

n (Ɛ) = 41
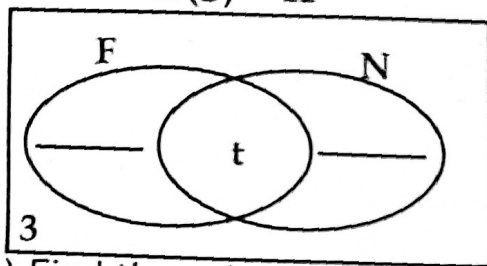
(b) Find the value of t. **(02 marks)**

(c) Find the number of pupils who like one game. **(02 marks)**

22 (a) Find the difference between the value of **6** and the value of **9** in the number **168497**. **(03 marks)**

(b) Write **852** in Roman Numerals. **(02 marks)**

23 Study the triangle below and answer the questions that follow.
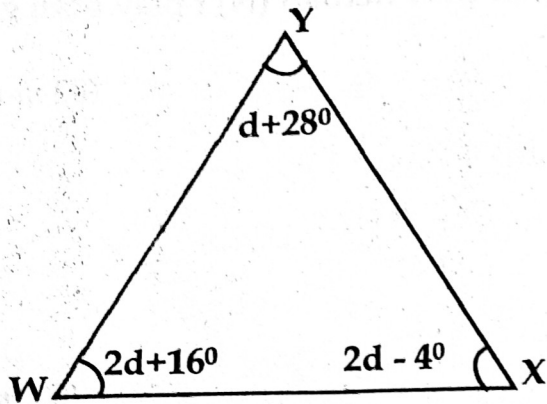
(a) Find the value of **d**. (03 marks)

(b) Calculate the size of angle XWY. (02 marks)

24 Change $\frac{9}{11}$ to a recurring decimal. (02 marks)

(b) Simplify: $\dfrac{6.4 \times 0.12}{0.06 \times 0.16}$ (03 marks)

25 The exchange rates in a bank are as follows.

1 Us dollar ($) = Ugsh.3600
1 British pound sterling (£) Ugsh.4800.
1 Kenya shilling (Ksh) = Ugsh.35
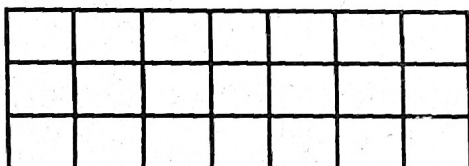
(a) Convert Ugsh. 1,470,000 to Kenyan shillings.   (02 *marks*)

(b) If a bicycle costs ($)400 in America, find the equivalent cost of the bicycle in British pound sterlings.   (03 *marks*)

26 The figure below represents a rectangular floor which is covered by square tiles. If the total area of the floor is 4725cm².

(a) Find the length of the floor.   (03 *marks*)

(b) Calculate the perimeter of the floor.   (02 *marks*

|	
27	A taxi driver left town **P** to town **Q** at **11:30**am driving at a speed of **64km/hr.** If the driver took **3 hr 45 min** to reach town Q. *(03 marks)* (a) At what time did the driver reach town Q? (b) Find the distance between town **P** and town **Q**. *(02 marks)*
28	Ali borrowed sh.**360,000** from a Sacco at a simple interest rate of 30% p.a. (a) Find the total interest Ali paid after **3½ years.** *(03marks)* (b) Calculate the total amount of money Ali paid to the Sacco after **3½ years.** *(02marks)*
29	Given that x = **5p** and **p** = 6. *(03marks)* (a) Find the value of **5p +5x.**

(b) Show the solution set for $-3 \leq x < 5$ on a number line. (02marks)

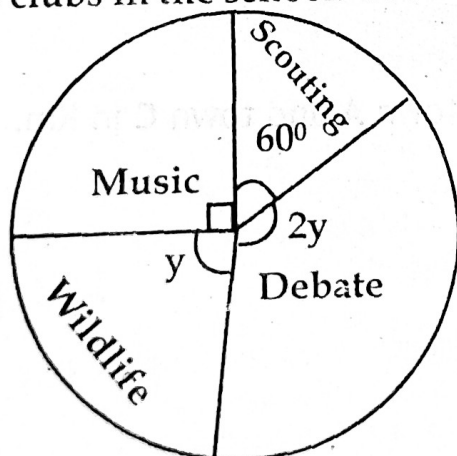30 Find in litres the amount of water that can be contained in the tank below. (04marks)

$(\pi = \frac{22}{7})$

200cm

140cm
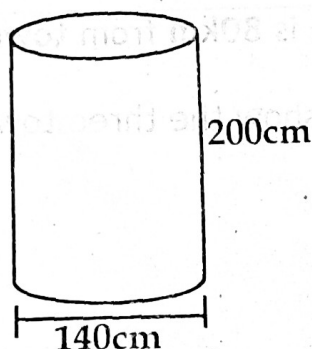
31 The pie-chart below shows how pupils of Namungodi P/S are distributed in various clubs in the school. Use it to answer the questions that follow.

Scouting

60⁰

Music

2y

y

Debate

Wildlife

(a) If there are 210 pupils in the wildlife club, find the number of pupils in the school. (03marks)

(b) What percentage of the school population is in the music club?   *(02marks)*

32 | Town A is **110km** East of **town B** and **town C** is **80km** from **town B** on a bearing of **210⁰**.

(a) Using a scale of **1cm** to represent **20km**, show the three towns on an accurate diagram.   *(04marks)*

(b) Find the shortest distance between town **A** and town **C** in Km.   *(01mark)*

Revision Tip.

Always write correct units for questions which require/ have units.