

3. Simplify:  $+5 - +7$

4. Simply:  $5q - 2r - 3q - r$ .

5. Convert 750 cubic centimetres into litres

6. Given that set  $R = \{a, b, c, d\}$  and  $S = \{a, f, p, c, s\}$ . Find  $n(R \cap S)$

7. Use distributive property to workout:  $(6 \div 7) \times (134 \div 7)$

9. In a box, there are blue and black pens. The probability of picking a red pen at random from the box is  $\frac{3}{7}$ . The bag contains 24 blue pens. Find the total number of pens in the box.
10. In the diagram bellow, Calculate the size of angle ABC.
11. Change 750 millimetres into litres.
12. A tank was 0.8 full of water. 0.75 of the water in the tank was used. What fraction of the water remained in the tank?
13. Calculate the circumference of a circle whose radius is 21m. (take  $\pi = \frac{22}{7}$ ).
14. Using a ruler, a pair of compasses and a pencil only. Construct an angle of  $135^\circ$  in the space provided below.

15. A pupil scored  $\frac{20}{25}$  in the first term mathematics test and  $\frac{18}{20}$  in the second term mathematics test. In which test did the pupil perform better?
16. Solve the inequality:  $3 \geq 7-2h$ .
17. The graph below shows the cost in shillings of mangoes and oranges. Study the graph and use it to answer questions that follow
18. A pupil paid sh.5000 for 3 pens and 2 books. The cost of each book was sh.800. find the cost of each pen.
19. A bus covered 126 kilometres in 1 hour 24 minutes. Express its speed in metres per second.
20. Find the cost of 2 mangoes and 3 oranges.

### **SECTION B**

21. A carton of salt contains 40 packets. Each packet has a mass of 250 grammes.
- a) Work out the mass in kilogrammes, of all the packets of salt in the carton.

- b) A family uses a packet of salt every 5 days. Find the number of days the carton will last the family.

22. The table below shows the different types of crops bought and sold on certain village store. Use it to answer questions that follow.

| Type of crop | buying   | Selling  |
|--------------|----------|----------|
| 1kg of rice  | Sh. 3550 | Sh. 3600 |
| 1kg of maize | Sh. 850  | Sh. 870  |
| 1kg of wheat | Sh. 1250 | Sh. 1300 |

- a) One day the store keeper made a profit of sh. 39000 on wheat. Find in kg the mass of wheat sold.
- b) Joseph had 174kg of rice. He exchanged them for maize. The maize was packed in sacks which hold 142kg each. How many sacks did he get?
23. The least number that can be divided by either 15 or k leaving 3 as the remainder is 63. The greatest common factor of the two numbers 15 and k is 5. Find the value of k.
24. Using a ruler and a pair of compasses only, construct a kite ABCD in which diagonal AC=6cm, diagonal BD bisects AC at X such that BX=3cm and DX=5cm.

25. Which number has been expanded to give  $(1 \times 2^3) + (1 \times 2^1) + (1 \times 2^0)$ ?

b) Given that  $23_d = 33_{\text{base}}$ . Find the value of d.

26. (a) workout:  $\frac{2x+1}{3} = \frac{x+8}{2}$ .

(b) If  $4-3(h-2)=1$ , find the value of h.

27. (a) complete the table below using the equation,  $y=x+1$

|   |       |       |       |       |
|---|-------|-------|-------|-------|
| x | -3    | ..... | 0     | ..... |
| y | ..... | 5     | ..... | 2     |

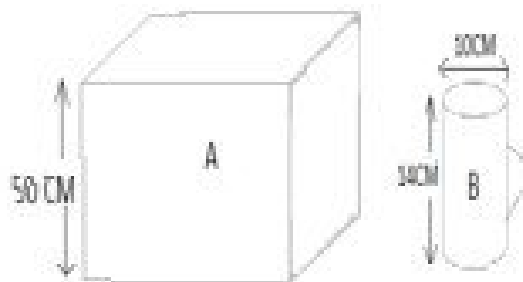
28. A farmer employed two workers to dig a piece of land. The first worker could dig the land alone in 6 days. The second worker could dig the same piece of land in three days. The two workers dug the land together.

a) Find the number of days they took to dig the piece of land.

b) The farmer paid each worker sh.15000 per day. Calculate the amount of money the farmer spent to dig the piece of land.

29. A book costs sh. Y, a pen costs  $\frac{1}{3}$  of the cost of a book and a ruler costs thrice the cost of a pen. If Ikomo paid sh. 7200 for all the three items, find the cost of 5 pens .

30. forty full cups of water in cups B fill container A. study the diagrams and answer the questions that follow.



- a) Find the volume of cup B. (take  $\pi = \frac{22}{7}$ ).

- b) Find the base area of container A.

31. Owiny, Opeta and Odwori moved from point P to point Q. Owiny moved using a 30cm stride, Opeta used a 50cm stride while Odwori used a 40cm stride. If they all reached point P,

- a) How long is point P from Point Q?



b) How many strides did Owiny make to reach?

32. In a class of 40 pupils, 23 pupils eat pork(P), 25 eat Fish(F), 2y like both Pork and Fish while 2 eat none of the two dishes,

a) Complete the Venn diagram below.



b) How many pupils do not eat pork?

END.