BUDO JUNIOR SCHOOL

P.7 MATHEMATICS PRACTICE SET 2(B)

Name: _____ Stream: _____

SECTION A

1. *Multiply 23 by 3*

2. *Write 60016 in words.*

3. *Given that set M = {1, 2, 3, 4, 5} and set N = {2, 4, 6, 8, 10}.*
   Find (M ∩ N)/

4. *Add:* $\frac{2}{3} + \frac{1}{4}$

5. *Simplify: (2x – 2) – (x + 2)*

6. *Find the next number in the sequence.*
   21, 23, 26, 31, 38, _____

7. *Using a ruler, a pencil and a pair of compasses only, construct an angle of 75^{0}.*

8. *By selling an article at sh.42500 a trader makes a loss of 15%. Find the cost price of the article.*

9. *Express 125 g as a ratio of a kilogram.*

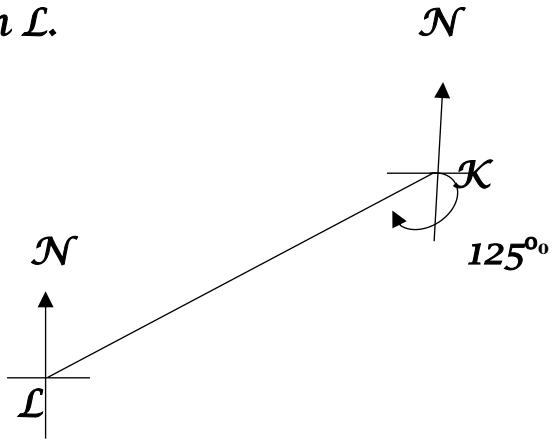
10. *Subtract 213_{five} from 311_{five}*

11. *Solve the inequality: $2 - 3x \leq 11$*

12. Write 0.0013 in standard form.

13. Express 20m/sec as speed in km/hr.

14. Use the diagram below to find the bearing of town K from town L.



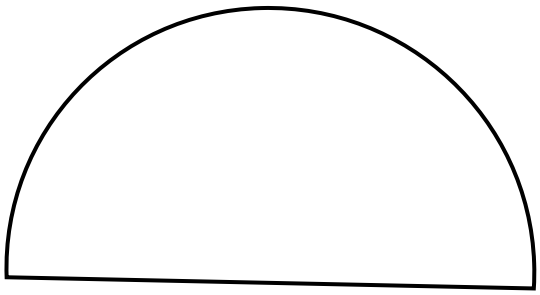
15. Solve for x: $3^{3x} \div 3^{2} = 243$.

16. A workshop started at 9:30 am and ended at 3:15 pm. How long did it take?

17. Given that three times a number is 15 more than a half of that number. Find the number.

18. Arinda deposited sh. 900,000 in a bank that offers an interest rate of 14% per annum. Find how much interest she got after 1 year and 8 months.

19. The length of the curved edge on the figure below is 33cm. Find the total distance around the curve.

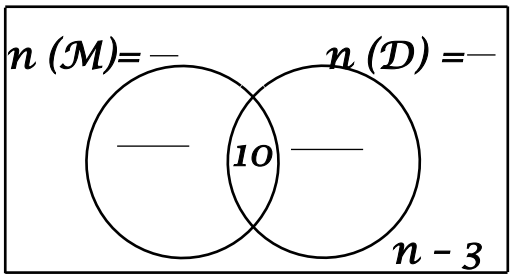


20. Simplify : $^{-}3 - {}^{+}2$

SECTION B

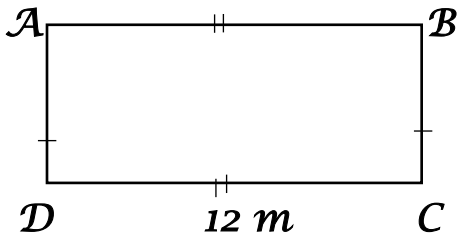
21. In a class of 35 learners, Students like Music (M) only. n like Dance (D), 10 like both activities and n – 3 do not like any of the two activities.

(a) Use the above information to complete the Venn diagram below $n(\varepsilon) = 35$ b) Find the value of n.



c) Find the total number of learners who do not like Music.

22. Below is a rectangle ABCD. Study it and use it to answer the questions that follow:



a) If its perimeter is 34 m, find its area.

b) *Find the length of diagonal BD.*

23. *(a)Work out:* $\frac{0.36 \times 2.5}{1.2 \times 0.05}$

(b) *Express 0.36…….. as a common fraction in its simplest form.*

24. *Vicky went shopping and bought the following items.*

2 kg of sugar at sh.3000 per kg.

1½ litres of milk at sh.1200 per litre.

250g of tea leaves at sh.2000 per kg.

A 2 kg loaf of bread at sh.7000.

15 eggs at sh.500 for 3 eggs.

(a) Work out her total expenditure.

(b) If he is given a discount of 15%, how much will he pay?

25. (a) Using a ruler, a pencil and a pair of compass, construct a triangle JKL where line JK = 6 cm, $<LJK = 60^{o}$, $<JKL = 45^{o}$. Drop a perpendicular line from point L to meet line JK at T.

(b) Measure line LT use it to find the area of the triangle.

26. A man spends $\frac{1}{5}$ of his salary on fees, $\frac{1}{8}$ of the remainder on medical care and he saves the rest which is sh.350, 000.

(a) How much is his salary?

(b) How much more does he save than he spends?

27. The table below shows the exchange rates of different currencies in a commercial bank.

Currency	Buying (Ug. sh.)	Selling (Ug sh.)
1 Us. Dollar ($)	3100	3150
1 Uk. Pound	4200	4450
1 K. sh.	28	30

a) If Mr. Manoti has Us. Dollar 13250, How much will he get in Ug.sh?

b) How many pounds can one get from K.sh.89000?

28. A motorist left town P driving at a speed of 80km/hr for 2½ hours to reach town Q.

He rested for 15 minutes and drove back to town p driving at an average speed of 160 km/hr.

a) Find the distance from town P to town Q.

b) Calculate his average speed for the whole journey.

29. *The table below shows how a class performed in a given test. Study it carefully and use it to answer the questions that follow:*

Mark	*70*	*80*	*50*	*75*	*94*
No. of learners	*1*	*3*	*2*	*2*	*5*

(a) What was the modal frequency?

(b) Work out the range of the scores.

(c) *If the pass mark was 74.Find the average of all the learners who passed the test.*

30. *A daughter is 20 years younger than her mother. In 10 years time, the daughter's age will be a half her mother's age.*

(a) *Find the daughter's age now.*

(b) *How old will the mother be in 10 years' time?*

31.(a) *What number has been expanded as below?*

$(3 \times 10^{3}) + (5 \times 10^{0}) + (7 \times 10^{-1}) + (9 \times 10^{-2})$

(c) Round off 36.971 to the nearest tenths.

32. Airport X is 800km away from Airport Y on a bearing of 150°. Airport Z is 600km away from airport X on a bearing of 240°.

(a) Draw a sketch showing the three Airports.

(b) Construct an accurate diagram using a scale of 1 cm : 100km, Showing the three Airports

(c) Find the shortest distance between Airport Z and Airport Y.

END