

PRIMARY MATHS SERIES

REVISION GUIDE FOR STANDARDS 7 AND 8

Elijah M. Michieka

And

Paul Otinga



www.kenpro.org

Nairobi, Kenya



Kenya Projects Organization (KENPRO) is committed to the noble ideals of sharing knowledge through Research and Publishing engagements. The organization continues to reap from the rich traditions of knowledge inherited from the past generations. She is committed to passing these traditions to the present and future generations through publishing.

Published by Kenya Projects Organization (KENPRO),
Magadi Road, Ongata Rongai | P.O. Box 3029-00200 Nairobi |
Mobile: +254 725 788 400 |
Email: kenpropublications@gmail.com |
Website: www.kenpro.org

ALL RIGHTS RESERVED. No part of this resource may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without prior permission in writing from the author and/or publisher.

UNIT 1

NUMBERS

1.1 Specific Objectives

By the end of this unit, the learner will be able to:

- a) Read and write numbers in symbols and words
- b) Work out squares and square roots of whole numbers, fractions and decimals
- c) Convert fractions to percentages and vice versa
- d) Work out problems involving operations on whole numbers, fractions, decimals and combined operations
- e) Work out problems involving number sequence of whole numbers, fractions and decimals.

In this section you will need the following hints to solve the exercises:

- Place value of whole numbers
- Total value of whole numbers
- Multiplication of whole numbers/tables
- BODMAS
- LCM and GCD

1.2 Worked Exercise

1. What is four million seventy thousand and five hundred and thirty three?

- A. 4,070,353 B. 4,070,533 C. 4,007,533 D. 4,700,533

Working

Using the place value table, the question can be solved as follows:

Millions	Hundred Thousands	Ten thousands	Thousands	Hundreds	tens	Ones
4	0	7	0	5	3	3

The correct answer is B (4070533)

2. What is the square root of $7\frac{9}{16}$?

- A. $7\frac{3}{4}$ B. $2\frac{3}{4}$ C. $1\frac{3}{8}$ D. $\frac{11}{16}$

Working

Step 1: Change the mixed fraction to improper $\frac{121}{16}$ Find the square root of both numerator and denominator.

Step 2: Find the square root of both numerator and denominator

$$= \frac{\sqrt{121}}{\sqrt{16}}$$

$$= \frac{11}{4}$$

Step 3: Change the improper fraction to mixed fraction

$$= 2\frac{3}{4}$$

The correct answer is B

3. What is 25% as a fraction?

A. $\frac{1}{25}$

B. $\frac{3}{4}$

C. $\frac{1}{2}$

D. $\frac{1}{4}$

Working

Step1: Express the percentage with 100 as a denominator.

$$= \frac{25}{100}$$

Step 2: Simplify

$$= \frac{1}{4} \quad \text{The correct answer is D}$$

4. What is the value of $\frac{1}{3}$ of $(\frac{1}{2} + \frac{1}{9}) \div \frac{1}{6}$

A. $\frac{11}{342}$

B. $\frac{1}{99}$

C. $1\frac{2}{9}$

D. $\frac{4}{11}$

Working

Step1: Using the order of operation, BODMAS, solve the brackets first.

$$\frac{1}{2} + \frac{1}{9} = \frac{9+2}{18}$$

$$= \frac{11}{18}$$

Step 2: Open brackets and calculate 'of'

$$= \frac{1}{3} \text{ of } (\frac{11}{18}) \div \frac{1}{6}$$

$$= \frac{11}{54} \div \frac{1}{6}$$

Step3: Calculate the division part

$$= \frac{11}{54} \div \frac{1}{6}$$

$$= \frac{11}{54} \times \frac{6}{1} \text{ (multiply by the reciprocal of } \frac{1}{6} \text{)}$$

$$= \frac{11}{9}$$

Step 4: Change the improper fraction to mixed fraction.

$$= 1 \frac{2}{9}$$

The correct answer is C.

5. The price of radio is Sh1800. The price reduced by 15% during an auction. How much is reduced after the reduction?

- A. Sh270 B. Sh2070 C. sh1530 D. sh1785

Working

Marked price = Sh1800

Percentage decrease = 15%

New price

85% of Sh1800 (100% - 15%)

$$= \frac{85 \times 1800}{100}$$

$$= \text{Sh1, 530}$$

The correct answer is Sh 1530 (c)

6. In a certain year a tea factory produced 2500 tonnes of tea leaves. The following year the tones increased to 4000 tonnes. What is the percentage increase?

- A .160% B. 62 ½ % C. 60% D 37 ½ %

Working

First year = 2500 tonnes

Second year = 4000 tonnes

Increase = 1500 tonnes

$$\% \text{ Increase} = \frac{\text{Increase}}{\text{Original}} \times 100$$

$$= \left(\frac{1500 \times 100}{2500} \right) \%$$

$$= 60\%$$

The correct answer is C (60%)

7. What is the next number in the sequence below.

6, 10, 19, 35,

- A. 60 B. 84 C. 71 D. 51

Working

6	10	19	35	_____
\	/ \	/ \	/ \	/ \
4	9	16		
2^2	3^2	4^2		

The next difference is $5^2 = 25$

The next number is $35 + 25 = 60$

The correct answer is A (60)

1.3 Practice Test Paper 1

1. What is the place value of digit 6 in the product of 384 and 53.85?

- A. Hundreds B. Thousands C. Hundredths D. Tens

2. What is the value of $\frac{0.9 \times 0.475 \times 1.89}{0.063 \times 0.095}$?

- A. 13.5 B. 1.35 C. 135 D. 1350

3. Tony planted maize on $\frac{1}{3}$ of his land and beans on $\frac{1}{2}$ of the land. He used the rest of his land on

$\frac{3}{4}$

potatoes. If he had 48 hectares of land, how many hectares were occupied by the potatoes?

- A. 15 ha B. 16 ha C. 12 ha D. 8 ha

4. What is the place value of the digit six in the number 4629305?

- A. Hundred thousand B. Millions C. Six hundred thousand D. Ten thousand

5. What is the value of $8 \div 0.02 + 1.35 \times 0.4$?

- A. 405.4 B. 40.4 C. 400.54 D. 160.54

6. What is the least common multiple of 27, 18 and 12?

- A. 3 B. 36 C. 108 D. 5832

7. What is the next number in the pattern?

1, 3, 7, 15, _____

- A. 31 B. 25 C. 23 D. 22

8. Find the value of $\frac{9}{14}$ of $1\frac{2}{3} - \frac{2}{3} \times \frac{6}{7}$

- A. $\frac{1}{14}$ B. 1 C. $\frac{1}{2}$ D. 2

9. Find the value of $\sqrt{1060 + 704}$

- A. 24 B. 42 C. 48 D. 18

10. Jane gave money to her three children. She gave $\frac{1}{3}$ of the total amount to the first child and $\frac{2}{5}$ of the remainder to the second child. She was then left with sh2400 which she gave to the third child. How much money did she give out altogether?

- A. Sh9000 B. Sh6000 C. Sh4000 D. Sh3600

11. A man harvested 900 bags of beans. He sold to his customers 0.7 of the harvested bags and gave 0.1 of what remained to a nearby cereals dealer. She kept the rest. How many bags of beans were kept?

- A. 27 B. 270 C. 243 D. 180

12. What is 9301854 written in words?

- A. Nine million, three thousand and one, eight hundred and fifty four.
- B. Ninety three and one thousand, eight hundred and fifty four.
- C. Nine million, three hundred and one thousand, eight hundred and fifty four.
- D. Nine hundred and thirty thousand, eighteen hundred and fifty four.

13. A meeting was attended by 150 people. Out of these, $\frac{7}{50}$ were men, $\frac{1}{5}$ were women and the rest were children. How many more children than women were there?

- A. 129
- B. 78
- C. 99
- D. 69

14. What is the value of

$$\frac{3(4^2 + 2^2) - 5 \times 6 \div 2}{3 \times 5}$$

- A. 17
- B. 59
- C. 211
- D. 3

15. What is the value of $\frac{2}{5} \div 1\frac{2}{3}$ of $\frac{3}{4}$

- A. $\frac{8}{9}$
- B. $\frac{1}{2}$
- C. $\frac{9}{50}$
- D. $\frac{8}{25}$

16. What is the next number in the sequence?

6, 13, 24, 37, _____

- A. 52
- B. 54
- C. 56
- D. 58

17. Which one of the following numbers is thirty six million, four hundred and thirty thousand, two hundred and nine and three thousandths?

- A. 36432009.3
- B. 3643209.003
- C. 36430209.003
- D. 364302009.03

18. In a meeting $\frac{3}{5}$ of the attendants were women, $\frac{1}{4}$ of the remainder were men and the rest were children. How many children were there?

- A. 800 B. 480 C. 240 D. 120

19. In the year 2010 the enrolment in a school was 450. In the year 2011 the enrolment decreased by 10% from that of the previous year. The enrolment increased by 20% in the year 2012. What was the enrolment in the year 2012?

- A. 396 B. 486 C. 495 D. 584

20. What is the square of $6\frac{1}{4}$?

- A. $39\frac{1}{16}$ B. $36\frac{1}{16}$ C. $12\frac{1}{2}$ D. $2\frac{1}{2}$

21. What is the greatest number that can divide 120 and 270 without a remainder?

- A. 3 B. 10 C. 30 D. 1080

22. What is the value of $\frac{8 + 0.5 \times 0.3 - 0.005}{0.09}$

- A. 9 B. 90 C. 27.7 D. 23.61

23. What is seventy three million, one hundred and twenty one thousand, and twenty five in figures?

- A. 7312025 B. 7121025 C. 73121205 D. 77121250

24. What is the value of $0.6 - 0.4 \times 0.23 - 0.01$

- A. 0.0498 B. 0.0044 C. 0.0036 D. 0.518

25. The price of a player is Sh950. If this is Sh50 less of the marked price, what is the percentage decrease?

- A. 5% B. $5\frac{5}{9}$ C. $5\frac{5}{9}\%$ D. 95%

26. What is 29.34046 rounded off to the nearest three decimal places?

- A 29.341 B 29.340 C. 29.34 D 29.300

27. What is one million three thousand and ten?

- A.1000310 B.103010 C. 1030010 D. 1003010

28. What is $\frac{15.46 - 9.08}{11 \times 0.4}$

- A. 0.145 B. 1.45 C. 14.5 D. 145

29. What is the value of $\frac{3}{4}$ of $5\frac{1}{3} + 6\frac{2}{5} - 1\frac{1}{3} - 1\frac{1}{5}$

- A. $11\frac{1}{3}$ B. $7\frac{3}{5}$ C. $6\frac{7}{10}$ D. $6\frac{3}{5}$

30. What is the next number in the sequence? $1\frac{1}{2}$, $1\frac{1}{4}$., $1\frac{1}{6}$ _____

- A. $1\frac{1}{32}$ B. $1\frac{1}{16}$ C. $\frac{11}{16}$ D. $1\frac{1}{14}$

1.4 Practice Paper 1 Answers

1	A	6	C	11	C	16	B	21	C	26	B
2	C	7	A	12	C	17	C	22	B	27	D
3	D	8	C	13	D	18	C	23	A	28	B
4	A	9	B	14	D	19	B	24	A	29	B
5	C	10	B	15	D	20	A	25	A	30	C