

THE UNITED REPUBLIC OF TANZANIA
THE NATIONAL EXAMINATIONAL COUNCIL OF TANZANIA
STANDARD FOUR NATIONAL ASSESSMENT

04E

MATHEMATICS

Time: 1:30 Hours

SOLUTIONS

Year: 2023

Instructions

1. This paper consists of **five (5)** questions.
2. Answer **all** questions

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1. (a) Write XLII in Arabic numerals.

$$XL = 40$$

$$II = 2$$

$$40 + 2 = 42$$

(b) The Masota football team has existed for 22 years since it started. Write these years in Roman numerals.

$$22 = 10 + 10 + 2$$

In Roman numerals = XXII

(c) Write 2020 in words.

2020 = two thousand and twenty

(d) Write a number with 1 ten-thousand, 7 thousands, 4 hundreds, 1 ten, and 3 ones.

$$1 \text{ ten-thousand} = 10,000$$

$$7 \text{ thousands} = 7,000$$

$$4 \text{ hundreds} = 400$$

$$1 \text{ ten} = 10$$

$$3 \text{ ones} = 3$$

$$10,000 + 7,000 + 400 + 10 + 3 = 17,413$$

(e) Father paid nine thousand and fifty shillings for an electricity anchor. Write this amount in figures.

$$\text{Nine thousand} = 9,000$$

$$\text{Fifty} = 50$$

$$9,000 + 50 = 9,050$$

2. (a) Write the missing number in the following sequence: 90, 85, 80, 75, ___.

$$90 - 5 = 85$$

$$85 - 5 = 80$$

$$80 - 5 = 75$$

$$75 - 5 = 70$$

The missing number = 70

(b) Which is greater, 84×6 or 86×4 ?

$$84 \times 6 = 504$$

$$86 \times 4 = 344$$

$$504 > 344$$

The greater one is 84×6

(c) Fill in the missing number in the following sequence: $1/2, 1/4, \underline{\quad}, 1/16$.

$$1/2 \div 2 = 1/4$$

$$1/4 \div 2 = 1/8$$

$$1/8 \div 2 = 1/16$$

The missing number = $1/8$

(d) A patient lost 1 kg every month. If in the first month he weighed 90 kg, what was his weight in the sixth month?

$$\text{Month 1} = 90$$

$$\text{Month 2} = 89$$

$$\text{Month 3} = 88$$

$$\text{Month 4} = 87$$

$$\text{Month 5} = 86$$

$$\text{Month 6} = 85$$

The weight in the sixth month = 85 kg

(e) Write the operation used to obtain the following number pattern: 99, 89, 79, 69, 59, 49, 39.

$$99 - 10 = 89$$

$$89 - 10 = 79$$

$$79 - 10 = 69$$

The pattern is subtracting 10 each step

3. (a) A book has 91 pages. If each page has 13 pictures, find the total number of pictures in the book.

$$91 \times 13$$

$$= 91 \times 10 + 91 \times 3$$

$$= 910 + 273$$

$$= 1183 \text{ pictures}$$

(b) Calculate 36×8 .

$$36 \times 8 = 288$$

(c) Add:

Hours Minutes

$$\begin{array}{r} 14 \quad 30 \\ + 8 \quad 40 \\ \hline \end{array}$$

Minutes: $30 + 40 = 70$ minutes = 1 hour 10 minutes

Hours: $14 + 8 + 1 = 23$

Total = 23 hours 10 minutes

(d) John slept for 3 hours and 45 minutes. How many minutes did he sleep in total?

3 hours = $3 \times 60 = 180$ minutes

$180 + 45 = 225$ minutes

(e) Subtract; Sh. 1980 – Sh. 1300 =

$1980 - 1300 = 680$ shillings

4. (a) A rectangle has a length of 100 centimetres and a width of 50 centimetres. What is its perimeter?

Perimeter of a rectangle = $2(\text{length} + \text{width})$

$= 2(100 + 50)$

$= 2 \times 150$

$= 300$ centimetres

(b) Write the name of the following shape.

The shape has three sides and three corners.

The name of the shape is a triangle.

(c) A rectangle has a perimeter of 80 cm and a length of 25 cm. Find its width.

Perimeter = $2(\text{length} + \text{width})$

$80 = 2(25 + \text{width})$

$80 \div 2 = 25 + \text{width}$

$40 = 25 + \text{width}$

Width = $40 - 25$

Width = 15 centimetres

(d) The Mtakuja Primary School football field has a perimeter of 480 m and a width of 40 m. Find its length.

Perimeter = $2(\text{length} + \text{width})$

$480 = 2(\text{length} + 40)$

$480 \div 2 = \text{length} + 40$

$240 = \text{length} + 40$

$$\text{Length} = 240 - 40$$

$$\text{Length} = 200 \text{ metres}$$

(e) The perimeter of a square is 60 cm. Find the length of one side.

$$\text{Perimeter of a square} = 4 \times \text{side}$$

$$60 \div 4 = 15$$

$$\text{Length of one side} = 15 \text{ centimetres}$$

5. Read the data in the following picture showing the school harvests, then answer the questions that follow.

One sack represents 1,000 kg.

From the chart:

Year 2015 has 3 sacks.

Year 2016 has 6 sacks.

Year 2017 has 4 sacks.

(a) In which year did the school obtain the highest harvest?

The highest number of sacks is 6.

The year is 2016.

(b) In 2017, how many kilograms did the school harvest?

$$\text{Sacks in 2017} = 4$$

$$1 \text{ sack} = 1,000 \text{ kg}$$

$$4 \times 1,000 = 4,000 \text{ kg}$$

(c) In which year did the school obtain the lowest harvest?

The lowest number of sacks is 3.

The year is 2015.

(d) What is the difference in harvest between the years 2017 and 2015 in kilograms?

$$\text{Harvest in 2017} = 4,000 \text{ kg}$$

$$\text{Harvest in 2015} = 3,000 \text{ kg}$$

$$\text{Difference} = 4,000 - 3,000$$

$$= 1,000 \text{ kg}$$

(e) In which year did the school have a harvest of 6,000 kg?

$$6,000 \text{ kg} \div 1,000 = 6 \text{ sacks}$$

The year with 6 sacks is 2016.