

THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
PRIMARY SCHOOL LEAVING EXAMINATION

04E

MATHEMATICS

Time: 2:00 Hours

Wednesday, 19th September 2012 a.m

Instructions

1. This paper consists of **fifty (50)** questions in sections A, B and C.
2. Answer **all** the questions in each section.
3. Read all the given instructions in the **special answer sheet (OMR)** and fill in all the required information.
4. Write your **Examination Number** and then **shade** it in your answer sheet.
5. Show clearly all the working in each question and **shade** a letter of the correct answer in the answer sheet provided. If the correct answer is A you will shade as follows:



6. If you have to change your answer, you must rub out the shading **very neatly** before shading the new one. Use a **clean rubber**.
7. Use **HB pencil** only.
8. Cellular phones and calculators are **not allowed** in the examination room.

SECTION A: MATHEMATICAL OPERATIONS

For each of questions 1 – 25, work out the answer, then choose the correct option and shade its corresponding letter in the answer sheet provided.

NO	QUESTION	WORKING SPACE
1.	$19,728 - 10,839 =$ A 8,889 B 9,889 C 9,899 D 9,989 E 9,999.	
2.	$3,750 \div 15 =$ A 205 B 250 C 25 D 2.50 E 2,050.	
3.	$3\frac{1}{5} \div \frac{4}{5} =$ A $\frac{16}{5}$ B $3\frac{4}{25}$ C $\frac{16}{25}$ D $2\frac{14}{25}$ E 4.	
4.	$-0.822 - 0.349 =$ A 1.161 B -1.171 C -1.161 D -0.171 E 1.171.	
5.	$8.113 \times 1.93 =$ A 15.64509 B 15.68709 C 15.65809 D 15.65709 E 15.65609.	
6.	$13789 - (6097 + 7906) =$ A -214 B -213 C -204 D 213 E 214	

NO	QUESTION	WORKING SPACE
7.	$5\frac{3}{5} - 1\frac{2}{3} =$ A $4\frac{1}{15}$ B $4\frac{1}{2}$ C $3\frac{1}{15}$ D $4\frac{14}{15}$ E $3\frac{14}{15}$.	
8.	$1\frac{1}{2} + 3\frac{1}{2} + \frac{3}{8} =$ A $4\frac{5}{12}$ B $5\frac{1}{4}$ C $5\frac{3}{8}$ D $5\frac{5}{8}$ E $4\frac{3}{8}$.	
9.	$(-2) - (-17) =$ A 16 B -19 C $+15$ D -15 E $+19$.	
10.	$0.427 \div 0.07 =$ A 6.10 B 61.0 C 0.61 D 0.061 E 610.	
11.	$287 \times 35 =$ A 7,415 B 9,945 C 10,045 D 9,045 E 10,015.	
12.	$6,879 + 926 + 68 + 9 =$ A 7,882 B 6,782 C 6,852 D 7,782 E 7,852.	
13.	Calculate $2^2 \times 641$ and then write the answer into Roman numbers. A MMDCLXIV B MM DLXIV C MMCDLXIV D MM LDXIV E MM DLIXV.	

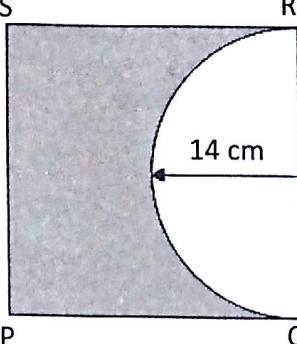
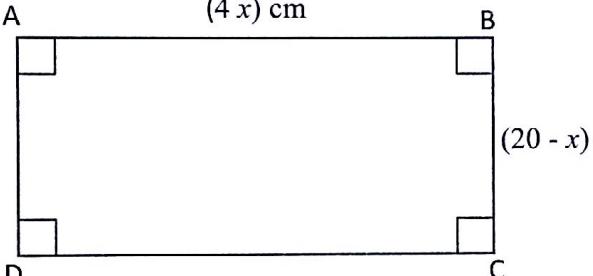
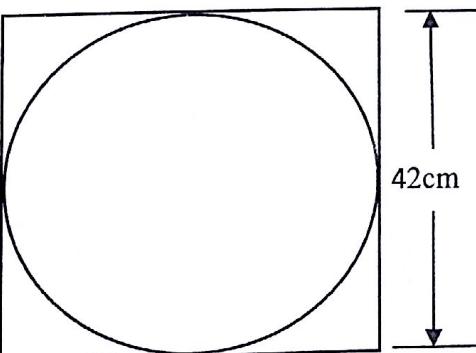
NO	QUESTION	WORKING SPACE
14.	<p>Multiply the square roots of $1\frac{18}{32}$ and $11\frac{1}{9}$.</p> <p>A $2\frac{1}{2}$ B $2\frac{1}{12}$ C $3\frac{5}{6}$ D $11\frac{18}{288}$ E $4\frac{1}{6}$.</p>	
15.	<p>Write the answer for $\left(\frac{20.2}{10^2} \div \frac{1}{2}\right)$ into a simplified fraction.</p> <p>A $\frac{101}{25}$ B $\frac{202}{500}$ C $\frac{404}{1,000}$ D $\frac{101}{250}$ E $\frac{404}{100}$.</p>	
16.	<p>How many prime numbers are there between 10 and 20?</p> <p>A 3 B 5 C 6 D 4 E 7.</p>	
17.	<p>Find the product of $\frac{15}{16}$ and $\frac{20}{21}$.</p> <p>A $\frac{25}{28}$ B $\frac{63}{64}$ C $\frac{64}{63}$ D $\frac{35}{37}$ E $\frac{25}{24}$.</p>	
18.	<p>The Least Common Multiple (L.C.M) of 42, 45 and 150 is</p> <p>A $2 \times 3 \times 5 \times 7$. B $2^2 \times 3 \times 5^2 \times 7$ C $2 \times 3^2 \times 5 \times 7$ D $2 \times 3^2 \times 5 \times 7^2$ E $2 \times 3^2 \times 5^2 \times 7$</p>	
19.	<p>Divide 248 kg 640 gm by 32.</p> <p>A 77 kg 70 gm B 7770 kg 0 gm C 777 kg 0 gm D 7 kg 770 gm E 7 kg 777 gm.</p>	

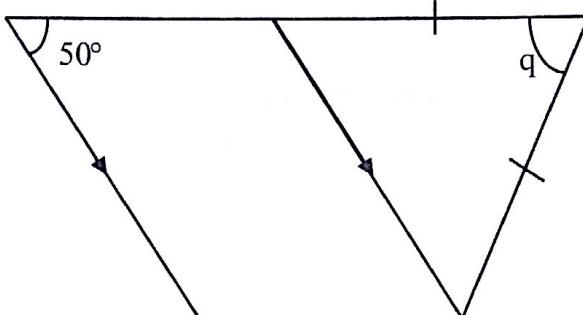
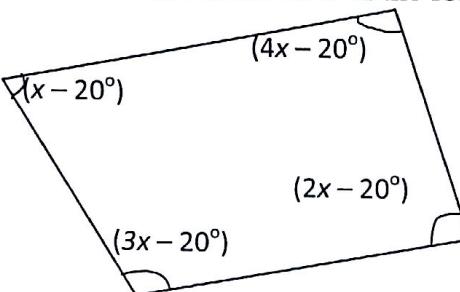
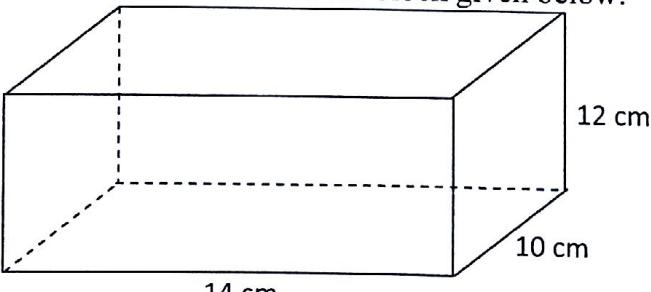
NO	QUESTION	WORKING SPACE
20.	<p>What number should be added to $\left(\frac{5}{2} + \frac{5}{4}\right)$ to get $\frac{1}{8}$?</p> <p>A 3 B $2\frac{3}{4}$ C $3\frac{5}{8}$ D $3\frac{1}{2}$ E $-3\frac{5}{8}$.</p>	
21.	<p>Change $\frac{0.6}{0.96}$ into percentage.</p> <p>A 625% B 62.5% C 6.25% D 0.0625% E 0.625%.</p>	
22.	<p>If $A = -1$ and $B = -2$, the value of x in $\frac{(A+B)(A-B)}{9} = \frac{1}{x}$ is</p> <p>A -3 B $\frac{1}{3}$ C 3 D $\frac{3}{9}$ E $-\frac{1}{3}$</p>	
23.	<p>$11(p+q) - 3(p-q)$ is the same as</p> <p>A $8p - 14q$ B $8p + 14q$ C $14p - 14q$ D $14q - 8p$ E $-8p - 14q$</p>	
24.	<p>Round off 85,996 to the nearest hundreds.</p> <p>A 85,900 B 85,990 C 85,000 D 86,000 E 80,000.</p>	
25.	<p>$(0.5^2 - 0.25^2) \div (0.5 - 0.25)$ is the same as</p> <p>A $\frac{1}{16}$ B $\frac{1}{8}$ C $\frac{1}{4}$ D $\frac{1}{2}$ E $\frac{3}{4}$.</p>	

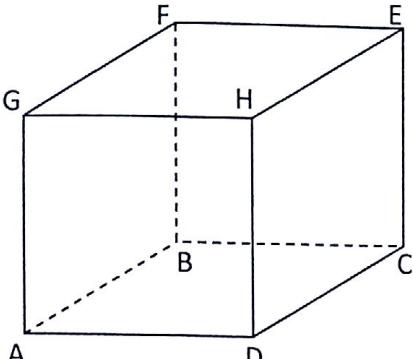
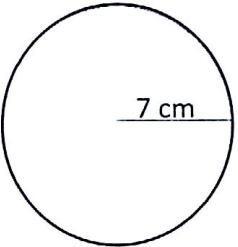
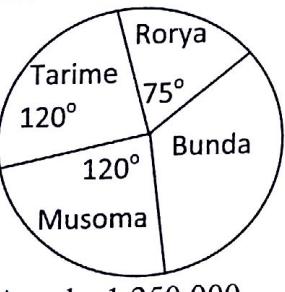
SECTION B: FIGURES

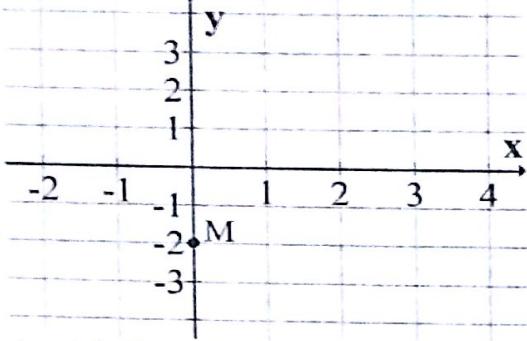
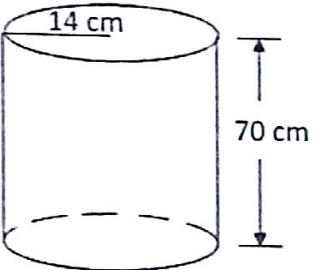
For each of questions 26 – 38, work out the answer, then choose and **shade** its corresponding **letter** in the answer sheet provided.

NO	QUESTION	WORKING SPACE
26.	<p>Find the value of t in the following triangle:</p> <p>A 25 B 144 C 13 D 169 E 17.</p>	
27.	<p>Find the area of the trapezium ABCD.</p> <p>A 60 cm^2 B 72 cm^2 C 45 cm^2 D 30 cm^2 E 90 cm^2.</p>	

NO	QUESTION	WORKING SPACE
28.	<p>Find the area of the shaded part if PQRS is a square. (Use $\pi = \frac{22}{7}$).</p>  <p>A 476 cm^2 B 784 cm^2 C 616 cm^2 D 308 cm^2 E 196 cm^2.</p>	
29.	<p>Find the area of the following rectangle ABCD if its perimeter is 100 cm.</p>  <p>A 336 cm^2 B 400 cm^2 C 100 cm^2 D 10 cm^2 E 40 cm^2.</p>	
30.	<p>Find the difference between the circumference of the circle and the perimeter of the square in the following figure. (Use $\pi = \frac{22}{7}$)</p>  <p>A 36 cm B 66 cm C 132 cm D 168 cm E 378 cm</p>	

NO	QUESTION	WORKING SPACE
31.	<p>Find the value of q in the following figure:</p>  <p>A 80° B 50° C 130° D 65° E 40°.</p>	
32.	<p>Determine the value of x in the following figure:</p>  <p>A 20° B 28° C 44° D 88° E 50°.</p>	
33.	<p>Find the surface area of the block given below:</p>  <p>A 716 cm^2 B 428 cm^2 C 756 cm^2 D 736 cm^2 E 856 cm^2</p>	

NO	QUESTION	WORKING SPACE
34.	<p>Find the volume of the following cube if the surface area of ABCD is 144 cm^2.</p>  <p>A 12 cm^3 B 144 cm^3 C $10,648 \text{ cm}^3$ D $1,728 \text{ cm}^3$ E 512 cm^3.</p>	
35.	<p>Find the circumference of the following circle. (Use $\pi = \frac{22}{7}$).</p>  <p>A 44 cm B 88 cm C 176 cm D 616 cm E 166 cm.</p>	
36.	<p>The following pie chart shows the amount of money from Primary Education Development Plan that was distributed to four districts; Rarya, Bunda, Musoma and Tarime in Mara region. If a total of shs 10,000,000 was distributed to the districts, how much money did Bunda district receive?</p>  <p>A shs 1,250,000 B shs 2,083,333 C shs 3,333,333 D shs 8,750,000 E shs 1,350,000.</p>	

NO	QUESTION	WORKING SPACE
37.	<p>Write down the coordinates of point M.</p>  <p>A $(-2, 0)$ B $(-2, 1)$ C $(0, -2)$ D $(-2, -2)$ E $(-2, -1)$.</p>	
38.	<p>Find the area of the following closed cylinder. (use $\pi = \frac{22}{7}$)</p>  <p>A $1,232 \text{ cm}^2$ B $6,776 \text{ cm}^2$ C 616 cm^2 D $6,160 \text{ cm}^2$ E $7,392 \text{ cm}^2$.</p>	

SECTION C: WORD PROBLEMS

For each of questions 39 – 50, work out the answer, then choose the correct option and **shade** its corresponding letter in the answer sheet provided.

NO	QUESTION	WORKING SPACE
39.	<p>Ntubi is 12 km North of Bugando hospital and Sakina is 9 km on the East side of the hospital. Find the distance between them.</p> <p>A 15 km B 19 km C 25 km D 3 km E 21 km.</p>	
40.	<p>Juma and Roza shared sh 15,000 in the ratio 11:4 respectively. How much money did Roza get?</p> <p>A sh 9,000 B sh 10,000 C sh 5,000 D sh 11,000 E sh 4,000.</p>	
41.	<p>Kazimoto has 122 kilograms and 952 grams of maize while his brother has 348 kilograms and 370 grams of maize. How many grams of maize do they have altogether?</p> <p>A 471,322 B 460,222 C 460,322 D 470,222 E 461,322.</p>	
42.	<p>The product of 12 and another number is twice the sum of 20 and the number. Find the number.</p> <p>A 8 B 6 C 4 D 2 E 5.</p>	
43.	<p>Jumanne gave $\frac{2}{10}$ of kilograms of rice to his young brother and $\frac{1}{10}$ to his uncle. If he remained with 14 kg, how many kilograms did he had before?</p> <p>A 10 B 20 C 14 D 22 E 30.</p>	

NO	QUESTION	WORKING SPACE
44.	<p>The average of five numbers is 42. If the first four numbers are 48, 54, 18 and 60, what is the fifth number?</p> <p>A 35 B 50 C 29 D 30 E 40.</p>	
45.	<p>Masingija went for shopping with shs 20,000 and bought the following items: 4 kg of flour @ shs 1,000; 6 kg of rice @ shs 1,200 and 6 bottles of soft drinks @ shs 400. How much money did she left with after buying all these items?</p> <p>A shs 13,600 B shs 6,400 C shs 12,600 D shs 7,600 E shs 7,400.</p>	
46.	<p>Find the cost of sending a telegram of 34 words, if the first 20 words cost shs 900 and shs 70 for each extra word.</p> <p>A shs 1,400 B shs 2,380 C shs 980 D shs 1,480 E shs 1,880.</p>	
47.	<p>The shop of Juakali opens at 0900 and closes at 1730 everyday. How many hours does Juakali take to sell the goods in his shop for 2 days?</p> <p>A 16.0 B 16.60 C 17.0 D 8.5 E 24.0</p>	
48.	<p>A large bottle of medicine has 425 liters 600 milliliters. If the medicine is put into 70 small bottles of the same size, what amount of milliliters shall each bottle possess?</p> <p>A 1,860 B 4,680 C 5,806 D 6,080 E 6,608</p>	

NO	QUESTION	WORKING SPACE
49.	<p>The children coughing medicine in a bottle has 630 milliliters before being used. If the child will use 10 milliliters 3 times a day, how many weeks shall that medicine be used?</p> <p>A 1 B 2 C 3 D 4 E 5</p>	
50.	<p>Kakulima deposited sh 760,000 in a bank which offers an interest rate of 20% per year. Find the interest which he got after nine months.</p> <p>A shs 124,000 B shs 132,000 C shs 154,000 D shs 114,000 E shs 152,000.</p>	