

JAMHURI YA MUUNGANO WA TANZANIA
BARAZA LA MITIHANI
MTIHANI WA KUMALIZA ELIMU YA MSINGI

04

HISABATI

Muda: Saa 2:00

Jumatano, 19 Septemba 2012 asubuhi

Maelekezo

1. Karatasi hii ina sehemu A, B na C zenye maswali **hamsini (50)**.
2. Jibu maswali **yote** katika kila sehemu.
3. Soma maelekezo yote yaliyoko katika **karatasi maalum (OMR)** ya kujibia na kujaza taarifa zote.
4. Andika **Namba yako ya Mtihani** kisha **weka kivuli** kwenye tarakimu za namba hiyo mahali panapohusika kwenye karatasi yako ya kujibia.
5. Kokotoa kila swali na kisha **weka kivuli** kwenye herufi ya jibu lililo sahihi kwa kila swali katika karatasi yako ya kujibia uliyopewa, kwa mfano kama jibu sahihi ni A weka kivuli kama ifuatavyo:

EA	CB	CC	CD	CE
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6. Ukigundua kuwa herufi uliyowekea kivuli **si jibu sahihi** futa kivuli hicho kwa umakini kwa kutumia **kifutio safi** kabla ya kuweka kivuli katika herufi mpya.
7. Tumia penseli ya **HB** tu.
8. Simu za mkononi na vikokotozi **haviruhusiwi** ndani ya chumba cha mtihani.

Ukurasi wa 1 kati ya 13

SEHEMU A: MATENDO YA KIHISABATI

Katika swali la 1 – 25, kokotoa swali ulilopewa na kisha weka kivuli kwenye herufi ya jibu lililo sahihi katika karatasi yako ya kujibia.

NA	SWALI	SEHEMU YA KAZI
1.	$19,728 - 10,839 =$ A 8,889 B 9,889 C 9,899 D 9,989 E 9,999.	$\begin{array}{r} 19,728 \\ - 10,839 \\ \hline 8,889 \end{array}$
2.	$3,750 \div 15 =$ A 205 B 250 C 25 D 2.50 E 2,050.	$\begin{array}{r} 250 \\ 15 \overline{) 3,750} \\ \underline{30} \\ 75 \\ \underline{75} \\ 0 \end{array}$
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.	$3\frac{1}{5} \div \frac{4}{5} = 3\frac{1}{5} \times \frac{5}{4} = 3\frac{1}{4} = 3\frac{25}{100} = 3\frac{1}{4}$
4.	$-0.822 - 0.349 =$ A 1.161 B -1.171 C -1.161 D -0.171 E 1.171.	$\begin{array}{r} -0.822 \\ - 0.349 \\ \hline -1.171 \end{array}$
5.	$8.113 \times 1.93 =$ A 15.64509 B 15.68709 C 15.65809 D 15.65709 E 15.65609.	$\begin{array}{r} 8.113 \\ \times 1.93 \\ \hline 24339 \\ 152034 \\ 150036 \\ \hline 15.65809 \end{array}$
6.	$13789 - (6097 + 7906) =$ A -214 B -213 C -204 D 213 E 214	$13789 - (6097 + 7906) = 13789 - 14003 = -214$

Ukurasi wa 2 kati ya 13

NA	SWALI	SEHEMU YA KAZI
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.	Kokotoa $2^2 \times 641$ na kisha andika jibu katika namba za kirumi. A MMDCLXIV B MMDLXIV C MMCDLXIV D MMLDXIV E MMDLIXV	

Ukurasi wa 3 kati ya 13

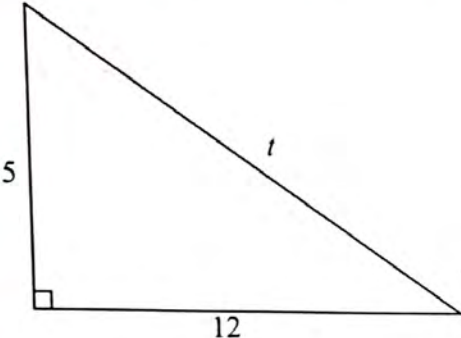
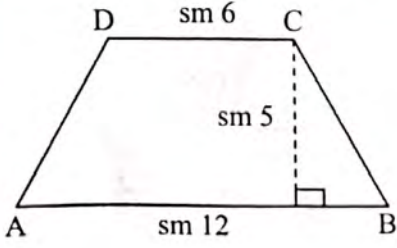
NA	SWALI	SEHEMU YA KAZI
14.	Zidisha vipewo vya pili vya $1\frac{18}{32}$ na $11\frac{1}{9}$. A $2\frac{1}{2}$ B $2\frac{1}{12}$ C $3\frac{5}{6}$ D $11\frac{18}{288}$ E $4\frac{1}{6}$.	$1\frac{18}{32} \times 11\frac{1}{9} = 11\frac{1}{2}$
15.	Andika jibu la $\left(\frac{20.2}{10^2} \div \frac{1}{2}\right)$ katika sehemu rahisi. A $\frac{101}{25}$ B $\frac{202}{500}$ C $\frac{404}{1,000}$ D $\frac{101}{250}$ E $\frac{404}{100}$.	$\frac{20.2}{100} \div \frac{1}{2} = \frac{202}{1000} = \frac{101}{500}$
16.	Kuna namba tasa ngapi kati ya 10 na 20? A 3 B 5 C 6 D 4 E 7.	10, 15, 20
17.	Tafuta zao la $\frac{15}{16}$ na $\frac{20}{21}$. A $\frac{25}{28}$ B $\frac{63}{64}$ C $\frac{64}{63}$ D $\frac{35}{37}$ E $\frac{25}{24}$.	$\frac{15}{16} \times \frac{20}{21} = \frac{5}{4} = 1\frac{1}{4}$
18.	Kigawe Kidogo cha Shirika (K.D.S) cha 42, 45 na 150 ni 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 $2 \times 3^2 \times 5^2 \times 7$	LCM = $2 \times 3^2 \times 5^2 \times 7 = 1575$
19.	Gawanya kg 248 gm 640 kwa 32. A kg 77 gm 70 B kg 7,770 gm 0 C kg 777 gm 0 D kg 7 gm 770 E kg 7 gm 777.	$248 \text{ gm } 640 \div 32 = 77 \text{ gm } 70$

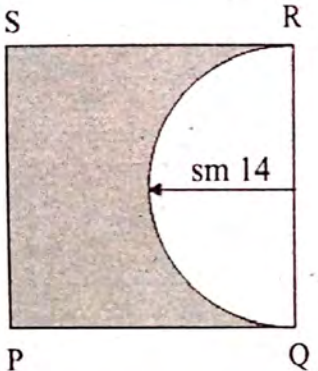
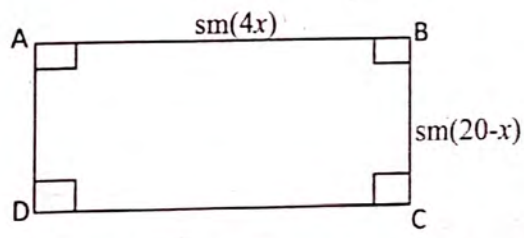
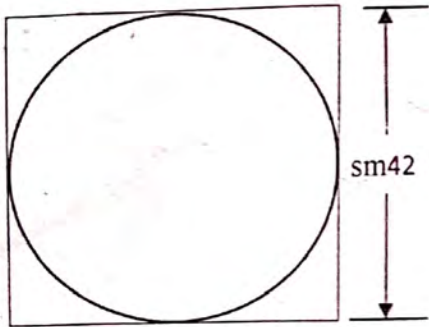
Ukurasi wa 4 kati ya 13


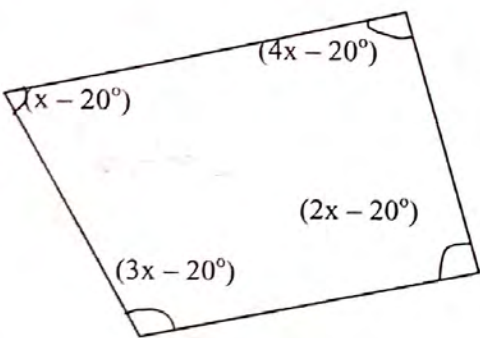
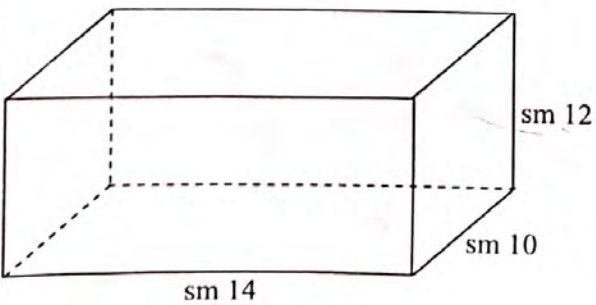
NA	SWALI	SEHEMU YA KAZI
20.	<p>Je $\left(\frac{5}{2} + \frac{5}{4}\right)$ ijumlishwe na namba gani ili kupata $\frac{1}{8}$?</p> <p>A 3 B $2\frac{1}{4}$ C $3\frac{5}{8}$ D $3\frac{1}{2}$ E $-3\frac{5}{8}$.</p>	$\frac{5}{2} + \frac{5}{4} = \frac{10}{4} + \frac{5}{4} = \frac{15}{4}$ $\frac{15}{4} - \frac{1}{8} = \frac{30}{8} - \frac{1}{8} = \frac{29}{8}$ $\frac{29}{8} = 3\frac{5}{8}$
21.	<p>Badili $\frac{0.6}{0.96}$ kuwa asilimia.</p> <p>A 625% B 62.5% C 6.25% D 0.0625% E 0.625%.</p>	$\frac{0.6}{0.96} = \frac{60}{96} = \frac{5}{8} = 0.625 = 62.5\%$
22.	<p>Ikiwa $A = -1$ na $B = -2$, tafuta thamani ya x kwenye mlinganyo $\frac{(A+B)(A-B)}{9} = \frac{1}{x}$</p> <p>A -3 B $\frac{1}{3}$ C 3 D $\frac{3}{9}$ E $-\frac{1}{3}$ ✓</p>	$\frac{(-1-2)(-1+2)}{9} = \frac{1}{x}$ $\frac{(-3)(-1)}{9} = \frac{1}{x}$ $\frac{3}{9} = \frac{1}{x}$ $\frac{1}{3} = \frac{1}{x}$ $x = 3$
23.	<p>$11(p+q) - 3(p-q)$ ni sawa na</p> <p>A $8p - 14q$ B $8p + 14q$ C $14p - 14q$ D $14q - 8p$ E $-8p - 14q$</p>	$11(p+q) - 3(p-q) = 11p + 11q - 3p + 3q = 8p + 14q$
24.	<p>Kadiria 85,996 katika mamia yaliyo karibu.</p> <p>A 85,900 B 85,990 C 85,000 D 86,000 E 80,000.</p>	85,996 ishirikiwa na 86,000
25.	<p>$(0.5^2 - 0.25^2) \div (0.5 - 0.25)$ ni sawa na</p> <p>A $\frac{1}{16}$ B $\frac{1}{8}$ C $\frac{1}{4}$ D $\frac{1}{2}$ E $\frac{3}{4}$.</p>	$(0.5^2 - 0.25^2) \div (0.5 - 0.25) = (0.25 - 0.0625) \div 0.25 = 0.1875 \div 0.25 = \frac{1875}{2500} = \frac{3}{4}$

SEHEMU B: MAUMBO

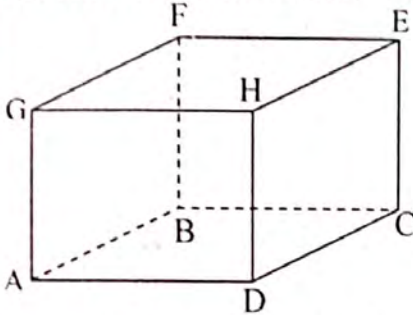
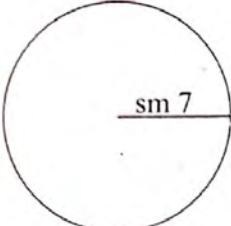
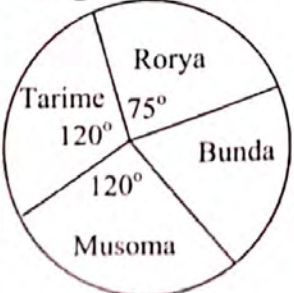
Katika swali la 26 – 38, ainisha mahitaji ya swali, kokotoa jibu na kisha **weka kivuli** kwenye **herufi** ya jibu lililo sahihi katika karatasi yako ya kujibia.

NA	SWALI	SEHEMU YA KAZI
26.	<p>Tafuta thamani ya t katika pembetatu ifuatayo:</p>  <p>A 25 B 144 C 13 D 169 E 17.</p>	<p>Handwritten calculations for question 26:</p> $5^2 + 12^2 = t^2$ $25 + 144 = t^2$ $169 = t^2$ $t = 13$
27.	<p>Tafuta eneo la trapeza ABCD.</p>  <p>A $\text{cm}^2 60$ B $\text{cm}^2 72$ C $\text{cm}^2 45$ D $\text{cm}^2 30$ E $\text{cm}^2 90$.</p>	<p>Handwritten calculations for question 27:</p> $\text{Area} = \frac{1}{2} \times (\text{top} + \text{bottom}) \times \text{height}$ $= \frac{1}{2} \times (6 + 12) \times 5$ $= \frac{1}{2} \times 18 \times 5$ $= 9 \times 5$ $= 45$

NA	SWALI	SEHEMU YA KAZI
28.	<p>Tafuta eneo lililotiwa kivuli iwapo umbo PQRS ni mraba. (Tumia $\pi = \frac{22}{7}$).</p>  <p>A sm² 476 B sm² 784 C sm² 616 D sm² 308 E sm² 196.</p>	<p>Handwritten calculations for question 28:</p> $\frac{22}{7} \times 14 \times 14 = 616$ $14 \times 14 = 196$ $616 - 196 = 420$
29.	<p>Tafuta eneo la mstatili ABCD ufuatao iwapo mzingo wake ni sm 100.</p>  <p>A sm² 336 B sm² 400 C sm² 100 D sm² 10 E sm² 40.</p>	<p>Handwritten calculations for question 29:</p> $2x = 4$ $x = 2$ $4x = 8$ $20 - x = 18$ $8 \times 18 = 144$
30.	<p>Tafuta tofauti kati ya mzingo wa duara na mzingo wa mraba katika umbo lifuatalo. (Tumia $\pi = \frac{22}{7}$)</p>  <p>A sm 36 B sm 66 C sm 132 D sm 168 E sm 378.</p>	<p>Handwritten calculations for question 30:</p> $\frac{22}{7} \times 42 \times 42 = 12444$ $42 \times 42 = 1764$ $12444 - 1764 = 10680$

NA	SWALI	SEHEMU YA KAZI
31.	<p>Tafuta thamani ya pembe q katika umbo lifuatalo:</p>  <p>A 80° B 50° C 130° D 65° E 40°</p>	<p>50° 130° 180° 180° 180°</p>
32.	<p>Tafuta thamani ya x katika umbo lifuatalo:</p>  <p>A 20° B 28° C 44° D 88° E 50°</p>	<p>$x - 20^\circ + 4x - 20^\circ + 2x - 20^\circ + 3x - 20^\circ = 360^\circ$ $10x - 80^\circ = 360^\circ$ $10x = 440^\circ$ $x = 44^\circ$</p>
33.	<p>Tafuta eneo la nyuso za tofali lifuatalo:</p>  <p>A $\text{sm}^2 716$ B $\text{sm}^2 428$ C $\text{sm}^2 756$ D $\text{sm}^2 736$ E $\text{sm}^2 856$</p>	<p>$14 \times 10 \times 12 =$ 140 140 140 420</p>

Ukurasi wa 8 kati ya 13

NA	SWALI	SEHEMU YA KAZI
34.	<p>Tafuta ujazo wa mche mraba ufuatao iwapo uso ABCD una eneo la sm^2 144.</p>  <p>A sm^3 12 B sm^3 144 C sm^3 10,648 D sm^3 1,728 E sm^3 512.</p>	
35.	<p>Tafuta mzingo wa duara lifuatalo. (Tumia $\pi = \frac{22}{7}$).</p>  <p>A sm 44 B sm 88 C sm 176 D sm 616 E sm 166.</p>	
36.	<p>Grafu mduara ifuatayo inaonesha mgawanyo wa pesa za Mpango wa Maendeleo ya Elimu ya Msingi katika Wilaya za Rorya, Bunda, Musoma na Tarime katika Mkoa wa Mara. Iwapo jumla ya sh 10,000,000 ziligawiwa katika Wilaya hizo, je Wilaya ya Bunda ilipata kiasi gani cha pesa?</p>  <p>A sh 1,250,000 B sh 2,083,333 C sh 3,333,333 D sh 8,750,000 E sh 1,350,000.</p>	

Ukurasi wa 9 kati ya 13

SEHEMU C: MAFUMBO

Katika swali la 39 – 50 ainisha mahitaji ya swali, kokotoa jibu na kisha weka kivuli kwenye herufi ya jibu lililo sahihi katika karatasi yako ya kujibia.

NA	SWALI	SEHEMU YA KAZI
39.	Ntubi yuko km 12 Kaskazini ya hospitali ya Bugando na Sakina yuko km 9 Mashariki ya hospitali hiyo. Tafuta umbali kati yao. A km 15 B km 19 C km 25 D km 3 E km 21.	$12 + 9 = 21$ $12 + 9 = 21$ km 21
40.	Juma na Roza waligawana sh 15,000 katika uwiano wa 11:4 kwa mpangilio huu. Je, Roza alipata kiasi gani? A sh 9,000 B sh 10,000 C sh 5,000 D sh 11,000 E sh 4,000.	$11 + 4 = 15$ $15000 \div 15 = 1000$ $1000 \times 4 = 4000$ sh 4,000
41.	Kazimoto ana kilogramu 122 na gramu 952 za mahindi. Kaka yake ana kilogramu 348 na gramu 370 za mahindi. Jumla wana gramu ngapi za mahindi? A 471,322 B 460,222 C 460,322 D 470,222 E 461,322.	$122 \times 1000 = 122000$ $952 \times 1000 = 952000$ $348 \times 1000 = 348000$ $370 \times 1000 = 370000$ $122000 + 952000 + 348000 + 370000 = 1792000$ 1792000
42.	Zao la 12 na namba nyingine ni sawa na kuzidisha 2 kwa jumla ya 20 na namba hiyo. Tafuta namba hiyo. A 8 B 6 C 4 D 2 E 5.	$12 \times 2 = 24$ $24 \div 2 = 12$ 12
43.	Jumanne aligawa $\frac{2}{10}$ ya kilogramu za mchele kwa mdogo wake na $\frac{1}{10}$ kwa mjomba wake. Ikiwa alibakiwa na kg 14. Je, awali alikuwa na kilogramu ngapi? A 10 B 20 C 14 D 22 E 30.	$\frac{2}{10} + \frac{1}{10} = \frac{3}{10}$ $\frac{3}{10} \times 14 = 4.2$ $14 + 4.2 = 18.2$ 18.2

NA	SWALI	SEHEMU YA KAZI
44.	<p>Wastani wa namba tano ni 42. Iwapo namba nne za mwanzo ni 48, 54, 18 na 60, namba ya tano ni ipi?</p> <p>A 35 B 50 C 29 D 30 E 40.</p>	
45.	<p>Masingija alikwenda dukani na sh 20,000, kununua vitu vifuatavyo: unga kg 4 @ sh 1,000; mchele kg 6 @ sh 1,200 na soda 6 @ sh 400. Je, alibakiwa na kiasi gani baada ya kununua vitu vyote hivyo?</p> <p>A sh 13,600 B sh 6,400 C sh 12,600 D sh 7,600 E sh 7,400.</p>	
46.	<p>Tafuta gharama ya kutuma simu ya maandishi yenye maneno 34 iwapo gharama ya maneno 20 ya mwanzo ni sh 900 na kwa kila neno linaloongezeka hutozwa sh. 70.</p> <p>A sh 1,400 B sh 2,380 C sh 980 D sh 1,480 E sh 1,880.</p>	
47.	<p>Duka la Juakali hufunguliwa saa 0900 na kufungwa saa 1730 kila siku. Je, Juakali hutumia saa ngapi kuuza duka lake kwa siku 2?</p> <p>A 16.0 B 16.60 C 17.0 D 8.5 E 24.0.</p>	
48.	<p>Chupa kubwa ya dawa ina ujazo wa lita 425 mililita 600. Ikiwa dawa itaingizwa katika chupa ndogo 70 zilizosawa, je kila chupa itakuwa na mililita ngapi?</p> <p>A 1,860 B 4,680 C 5,806 D 6,080 E 6,608.</p>	

Ukurasi wa 12 kati ya 13

NA	SWALI	SEHEMU YA KAZI
49.	<p>Dawa ya kikohozi ya mtoto ikiwa kwenye chupa ina ujazo wa mililita 630 kabla ya kutumiwa. Ikiwa mtoto atatumia mililita 10 kutwa mara 3 kila siku, je dawa hiyo itatumika kwa wiki ngapi?</p> <p>A 1 B 2 C 3 D 4 E 5.</p>	
50.	<p>Kakulima aliweka sh 760,000 katika benki inayotoa faida ya 20% kwa mwaka. Tafuta faida aliyopata baada ya miezi tisa.</p> <p>A sh 124,000 B sh 132,000 C sh 154,000 D sh 114,000 E sh 152,000.</p>	