

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

**04**

**HISABATI**

**Muda: Saa 2:00**

**Jumatano, 10 Septemba 2014 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:

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
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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.



Ukurasa wa 1 kati ya 15

kmg04

# 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.	$0.0027 \div 0.3 =$ A 0.009      B 0.09      C 0.9 D 9            E 90.	$\begin{array}{r} 0.0027 : 0.3 \\ \underline{0.0027} \phantom{+ 10000} 0.0027 \\ 0.3 + 10000 = 3000 \\ 3000 \phantom{00} 27 \\ \underline{27} \phantom{00} 0 \\ 0 \end{array}$
2.	$5,103 - 978 =$ A 4,125      B 4,135      C 4,225 D 4,235      E 4,025.	$\begin{array}{r} 5103 \\ - 978 \\ \hline 4125 \end{array}$
3.	$345 \times 25 =$ A 7,625      B 7,505      C 8,605 D 8,525      E 8,625.	$\begin{array}{r} 345 \\ \times 25 \\ \hline 1725 \\ 6900 \\ \hline 8625 \end{array}$
4.	$7\frac{1}{4} \times 2\frac{1}{4} =$ A $14\frac{3}{16}$ B $16\frac{5}{16}$ C $16\frac{6}{16}$ D $16\frac{7}{16}$ E $14\frac{1}{16}$ .	$\begin{array}{r} 7\frac{1}{4} \times 2\frac{1}{4} \\ \frac{29}{4} \times \frac{9}{4} \\ \frac{261}{16} \end{array}$
5.	$(-24) - (-10) =$ A -14      B -4      C 34 D -14      E -34.	$\begin{array}{r} 24 \\ - 10 \\ \hline 14 \end{array}$

Ukurasa wa 2 kati ya 15

NA	SWALI	SEHEMU YA KAZI
6.	$(-18) \times (-18) =$ A $-324$ B $-264$ C $+324$ D $+264$ E $+234$ .	$\begin{array}{r} 18 \phantom{00} 6 \\ \times 18 \phantom{00} 6 \\ \hline 108 \phantom{00} 6 \\ 144 \phantom{00} 6 \\ \hline 324 \phantom{00} 6 \end{array} + 324$
7.	$42.092 + 31.572 =$ A 73.164    B 73.264    C 74.164 D 74.264    E 73.664.	$\begin{array}{r} 42.092 \\ + 31.572 \\ \hline 73.664 \end{array}$
8.	$9\frac{2}{7} - 6\frac{1}{5} + 1\frac{1}{2} =$ A $4\frac{1}{2}$ B $4\frac{41}{70}$ C $4\frac{1}{70}$ D $4\frac{40}{70}$ E $4\frac{1}{3}$ .	$9\frac{2}{7} - 6\frac{1}{5} + 1\frac{1}{2} = 3\frac{10-7}{35} = 3\frac{3}{35}$ $3\frac{3}{35} + 1\frac{1}{2} = 4\frac{6+2}{70} = 4\frac{8}{70}$
9.	$(2\frac{1}{6} - 1\frac{5}{8}) \div 2\frac{5}{8} =$ A $\frac{13}{63}$ B $\frac{3}{63}$ C $\frac{13}{81}$ D $\frac{15}{63}$ E $\frac{15}{81}$ .	$\frac{13}{6} - \frac{9}{8} = \frac{44}{24} - \frac{27}{24} = \frac{17}{24}$ $\frac{17}{24} \div 2\frac{5}{8} = \frac{17}{24} \times \frac{8}{21} = \frac{17}{63}$
10.	$15,614 - T = 14,659$ . Thamani ya T ni A 855    B 955    C 1055 D 965    E 1065	$\begin{array}{r} 15614 \\ - 14659 \\ \hline 955 \end{array}$

Ukurasa wa 3 kati ya 15

NA	SWALI	SEHEMU YA KAZI
11.	$2.3 \times 0.48 \times 1.05 =$ A 1.0542    B 1.1382    C 1.1544 D 1.1592    E 1.656.	$\begin{array}{r} 2.30 \\ \times 0.48 \\ \hline 1840 \\ 9200 \\ \hline 11040 \end{array}$ $\begin{array}{r} 11040 \\ \times 1.05 \\ \hline 11040 \\ 110400 \\ \hline 115920 \end{array}$
12.	g      mg 13      640 -7      750 ----- A g 5 mg 890      B g 6 mg 890 C g 6 mg 110      D g 6 mg 990 E g 5 mg 990.	$\begin{array}{r} 9 \text{ mg} \\ 13 \text{ } 640 \\ -7 \text{ } 750 \\ \hline 6 \text{ } 890 \end{array}$
13.	(Siku 9 saa 7) $\times$ 6 = A siku 55 saa 18      B siku 54 saa 42 C siku 57 saa 06      D siku 53 saa 18 E siku 58 saa 02.	$\begin{array}{r} \text{Siku} \quad \text{Saa} \\ 9 \quad 7 \\ \times \quad 6 \\ \hline 54 \quad 42 \end{array}$
14.	Ikiwa $x : y = 2.5 : 6.5$ , tafuta y iwapo $x = 1.5$ . A 3.73    B 3.90    C 4.90 D 9.75    E 10.00.	$\frac{2.5}{1.5} = \frac{y}{1.5} \Rightarrow y = 1.5$
15.	Tafuta asilimia 5 ya 5. A 0.05%    B 2.5%    C 25% D 1.00%    E 0.25%.	

Ukurasa wa 4 kati ya 15



NA	SWALI	SEHEMU YA KAZI
16.	Badili 0.0011 kuwa asilimia. A 11%    B 110%    C 0.011% D 0.11%    E 1.1 %.	$11\frac{1}{2}$
17.	Rahisisha $2\frac{1}{2}\%$ kuwa sehemu rahisi. A $\frac{1}{400}$ B $\frac{1}{48}$ C $\frac{1}{40}$ D $\frac{5}{2}$ E $\frac{5}{200}$	$2\frac{1}{2} \times 100 = 250$ $\frac{250}{100} = \frac{5}{2}$
18.	Tafuta thamani ya x katika mlinganyo ufuatao: $6x - \frac{3}{2}x = 18$ A 2    B 6    C $\frac{12}{5}$ D 4    E $\frac{6}{5}$	$6x - \frac{3}{2}x = 18$ $\frac{12x - 3x}{2} = 18$ $\frac{9x}{2} = 18$ $9x = 36$ $x = 4$
19.	Tafuta hisa ikiwa kigawanyo ni 203 na kigawanye ni 70,035. A 335    B 343    C 345 D 347    E 435.	$203 \overline{) 70035}$ $436$ $203 \overline{) 436}$ $858$

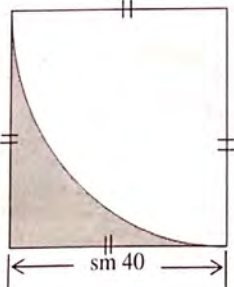
Ukurasa wa 5 kati ya 15

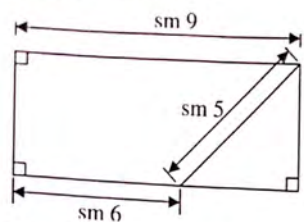
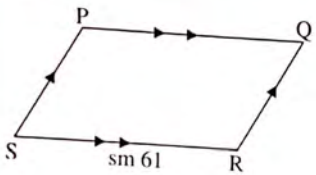
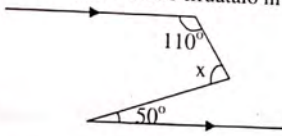
NA	SWALI	SEHEMU YA KAZI
20.	Andika saa 8.20 usiku katika mtindo wa saa 24. A 0220      B 1020      C 1620 D 2020      E 0820.	8.20 1020 2020
21.	Tafuta namba inayofuata kwenye mwandamo: 24, 27, 31, 36, ... A 40      B 41      C 42 ✓ D 43      E 46.	42
22.	Ikiwa $a = -2$ na $b = 3$ ; tafuta thamani ya $\frac{a^2b - 2ab}{ab + a}$ . A -3      B 3      C -4 ✓ D 6      E 0.	$\frac{a^2b - 2ab}{ab + a}$ $\frac{a(ab - 2a)}{a(b + 1)}$ $\frac{a(b - 2)}{b + 1}$
23.	Tafuta wastani wa namba zifuatazo: 105, 125, 145, 140 na 135. A 125      B 130      C 135 D 145      E 120. ✓	$\begin{array}{r} 105 \\ 125 \\ 145 \\ 140 \\ 135 \\ \hline 650 \end{array}$ $\begin{array}{r} 125 \\ 5 \overline{) 660} \\ \underline{5} \phantom{0} \\ 16 \\ \underline{15} \\ 10 \\ \underline{10} \\ 0 \end{array}$ $\begin{array}{r} 68 \\ 24 \\ \hline 44 \end{array}$
24.	Zidisha saa 7 na dakika 45 kwa 9. (Andika jibu katika dakika) A 4125      B 4205      C 4175 ✓ D 4215      E 4185.	$\begin{array}{r} \text{saa } 7 \text{ dk } 45 \\ \times 9 \\ \hline 63 \text{ dk } 05 \end{array}$ $\begin{array}{r} 41 \text{ dk } 18 \\ 9 \overline{) 4118} \\ \underline{81} \phantom{8} \\ 61 \phantom{8} \\ \underline{54} \phantom{8} \\ 718 \\ \underline{63} \phantom{8} \\ 88 \\ \underline{81} \\ 7 \end{array}$

NA	SWALI	SEHEMU YA KAZI
25.	<p>Andika namba ya kirumi MCLXVI kwa namba ya kawaida.</p> <p>A 1116      B 1146      C 1166</p> <p>D 1164      E 1516.</p>	

#### SEHEMU B: MAUMBO

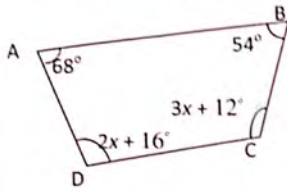
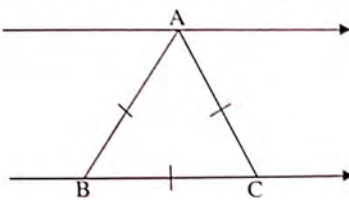
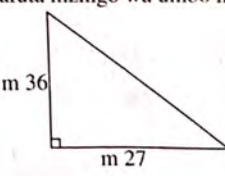
Katika swali la 26 – 38, ainisha mahitaji ya swali, kokotoa jibu na kisha weka kivuli kwenye herufi ya jibu lililo sahihi katika karatasi yako ya kujibia.

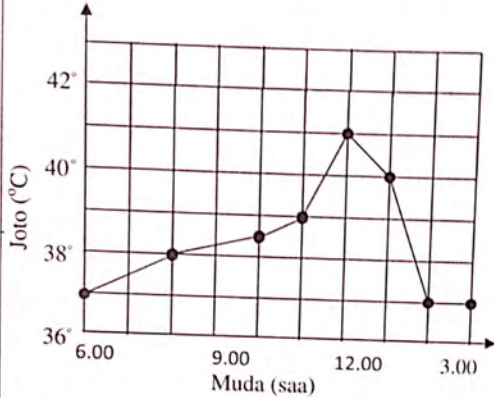
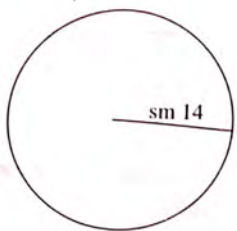
NA	SWALI	SEHEMU YA KAZI
26.	<p>Tafuta eneo la sehemu yenye kivuli katika umbo lifuatalo. (Tumia <math>\pi = 3.14</math>).</p>  <p>A <math>\text{sm}^2</math> 244      B <math>\text{sm}^2</math> 324      C <math>\text{sm}^2</math> 344</p> <p>D <math>\text{sm}^2</math> 354      E <math>\text{sm}^2</math> 444.</p>	$  \begin{array}{r}  3.14 \\  \times 40 \\  \hline  1256 \\  12560 \\  \hline  12560  \end{array}  $

NA	SWALI	SEHEMU YA KAZI
27.	<p>Tafuta eneo la umbo lifuatalo:</p>  <p>A <math>\text{sm}^2 30</math>      B <math>\text{sm}^2 36</math>  C <math>\text{sm}^2 45</math>      D <math>\text{sm}^2 54</math>  E <math>\text{sm}^2 20</math>.</p>	
28.	<p>Eneo la msambamba PQRS ni <math>\text{sm}^2 488</math>. Tafuta kimo chake.</p>  <p>A <math>\text{sm} 4</math>      B <math>\text{sm} 16</math>      C <math>\text{sm} 7</math>  D <math>\text{sm} 11</math>      E <math>\text{sm} 8</math>.</p>	
29.	<p>Thamani ya <math>x</math> katika umbo lifuatalo ni:</p>  <p>A <math>120^\circ</math>      B <math>160^\circ</math>      C <math>50^\circ</math>  D <math>70^\circ</math>      E <math>60^\circ</math>.</p>	$110 + 50x = 180$ $\begin{array}{r} 110 \\ + 50 \\ \hline 160 \end{array}$ $\begin{array}{r} 180 \\ - 160 \\ \hline 20 \end{array}$ $160x = 180$ $\begin{array}{r} 160x \\ = 180 \\ \hline x = \end{array}$ $\begin{array}{r} 110 \\ + 50 \\ \hline 160 \\ 20 \\ \hline 140 \end{array}$

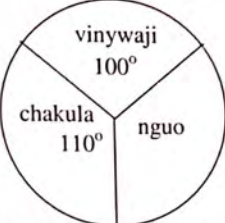
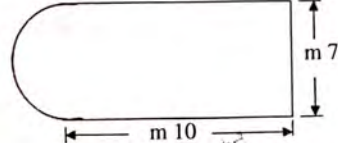
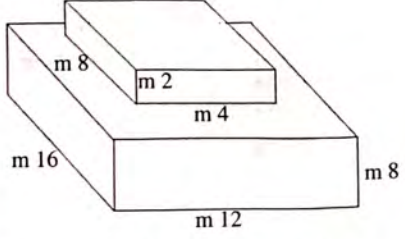
Ukurasa wa 8 kati ya 15

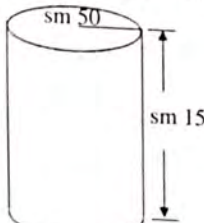


NA	SWALI	SEHEMU YA KAZI
30.	<p>Tafuta thamani ya <math>x</math> katika umbo lifuatalo:</p>  <p>A <math>35^\circ</math>    B <math>40^\circ</math>    C <math>42^\circ</math>  D <math>44^\circ</math>    E <math>45^\circ</math>.</p>	<p> <math>2x + 16 + 3x + 12 + 54 + 68</math>  <math>2x + 32 = 5</math>  <math>5x = 150</math>  <math>x = 30</math> </p>
31.	<p>Jina la umbo ABC katika mchoro ufuatao ni</p>  <p>A pembetatu sawa    B pembetatu pacha  C pembetatu mraba    D pembetatu guni  E pembetatu sambamba.</p>	
32.	<p>Tafuta mzingo wa umbo lifuatalo:</p>  <p>A m 45    B m 63    C m 108  D m 118    E m 486.</p>	<p> <math>36</math>  <math>27</math>  <math>63</math> </p>

NA	SWALI	SEHEMU YA KAZI
33.	<p>Grafu ifuatayo inaonesha maendeleo ya homa ya Mariana tangu alipofikishwa hospitalini kwa matibabu saa 6.00. Je, ilimchukua muda wa saa ngapi Mariana kuanza kupata nafuu?</p>  <p>A 3      B 4      C 6 D 12    E 9.</p>	$\begin{array}{r} 42 \\ 40 \\ \hline 2 \\ 8 \\ 38 \\ \hline 120 \\ 336 \\ \hline 156 \end{array}$ $\begin{array}{r} 6.00 \\ 1.56 \\ \hline 4 \end{array}$
34.	<p>Tafuta eneo la duara lifuatalo. (Tumia <math>\pi = \frac{22}{7}</math>)</p>  <p>A <math>\text{cm}^2</math> 606    B <math>\text{cm}^2</math> 616    C <math>\text{cm}^2</math> 516 D <math>\text{cm}^2</math> 526    E <math>\text{cm}^2</math> 626.</p>	$T_{\text{R}}^2 = \frac{22}{7} \times \frac{2}{1} \times 14$ $\begin{array}{r} 14 \\ 22 \\ \hline 176 \\ 14 \\ \hline 616 \end{array}$

Ukurasa wa 10 kati ya 15

NA	SWALI	SEHEMU YA KAZI
35.	<p>Jack alitumia sh. 48,000 kununua vinywaji, nguo na chakula. Kwa kutumia grafu kwa duara ifuatayo, ni kiasi gani cha fedha kilitumika kununulia nguo?</p>  <p>A sh. 24,000    B sh. 28,000 C sh. 20,000    D sh. 40,000 E sh. 48,000.</p>	$\frac{100}{110} \times 48000 = 21090.9$ $21090.9 \approx 21091$
36.	<p>Tafuta eneo la umbo lifuatalo. (Tumia <math>\pi = \frac{22}{7}</math>).</p>  <p>A m<sup>2</sup> 70.0    B m<sup>2</sup> 79.25    C m<sup>2</sup> 79.75 D m<sup>2</sup> 89.25    E m<sup>2</sup> 108.5.</p>	$\frac{22}{7} \times 10 \times 7 = 220$ $\frac{22}{7} \times \frac{7^2}{4} = 38.5$ $220 + 38.5 = 258.5$
37.	<p>Tafuta ukubwa wa umbo lifuatalo:</p>  <p>A m<sup>3</sup> 1536    B m<sup>3</sup> 1552    C m<sup>3</sup> 1600 D m<sup>3</sup> 1920    E m<sup>3</sup> 1472.</p>	$16 \times 12 \times 8 = 1536$ $8 \times 4 \times 2 = 64$ $1536 + 64 = 1600$

NA	SWALI	SEHEMU YA KAZI
38.	<p>Tafuta ujazo wa mcheduara ufuatao katika lita. (Tumia <math>\pi = 3.14</math>, lita 1 = <math>\text{sm}^3</math> 1000)</p>  <p>A 117.75      B 392.50      C 785.0 D 1170.50      E 1177.50</p>	

#### 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.	<p>Kazimoto alinunua maembe kwa sh.5,000 na kuyauza kwa sh.6,000. Tafuta asilimia ya faida iliyopatikana.</p> <p>A 16.7      B 20      C 30 D 40      E 83.</p>	
40.	<p>Amani alinunua vitu vifuatavyo: mifuko 2 ya sukari @ 25,000/=, doti 3 za kanga @ 5,000, vikombe dazeni 2 @ 2,800 na viazi kilo 10. Ikiwa alilipa jumla ya sh.91,000, bei ya kilo moja ya viazi ni shilingi ngapi?</p> <p>A sh. 2,040      B sh. 2,400      C sh. 2,140 D sh. 204      E sh. 1,040.</p>	<p>Handwritten calculations:</p> $  \begin{array}{r}  2 \times 25000 = 50000 \\  3 \times 5000 = 15000 \\  2 \times 2800 = 5600 \\  10 \times 2040 = 20400 \\  \hline  50000 + 15000 + 5600 + 20400 = 91000  \end{array}  $

Ukurasa wa 12 kati ya 15



NA	SWALI	SEHEMU YA KAZI
41.	<p>Bustani yenye ukubwa wa hekta <math>5\frac{1}{4}</math> iligawanywa katika vitalu vya ukubwa wa hekta 0.25 kila kimoja. Je, vilipatikana vitalu vingapi?</p> <p>A 15              B 20              C 25 D 21              E 30.</p>	<p><math>20 \times 1025 = 20</math></p>
42.	<p>Karina alitumia <math>\frac{1}{3}</math> ya mshahara wake kwa chakula, <math>\frac{1}{4}</math> kwa ada za shule na <math>\frac{1}{5}</math> kwa mahitaji mengine na kubakiwa na sh.13,000. Je, mshahara wake kwa mwezi ulikuwa ni shilingi ngapi?</p> <p>A sh. 60,000      B sh. 65,000 C sh. 78,000      D sh. 130,000 E sh. 48,750.</p>	
43.	<p>Basi la Maringo Express liliondoka Iringa saa 12.00 asubuhi kuelekea Dar es Salaam umbali wa km 640. Ikiwa lilisafiri kwa wastani wa mwendo wa km 80 kwa saa, lilifika Dar es Salaam saa ngapi? (Andika jibu kwa mpango wa saa 24).</p> <p>A 2400      B 2000              C 0200 D 0800      E 1400.</p>	
44.	<p>Kawemba alikuwa na salio la sh. 10,000 kwenye simu yake ya kiganjani. Alituma ujumbe mmoja mfupi kwa marafiki zake watatu kwa gharama ya sh 150 kila ujumbe. Je, katika simu yake alibakiwa na kiasi gani cha fedha?</p> <p>A sh. 9,850      B sh. 9,950      C sh. 9,700 D sh. 9,550      E sh. 9,055.</p>	<p>Jumla ya neno <del>10000</del> sh — maneno — sh — ② —</p>

NA	SWALI	SEHEMU YA KAZI
45.	Hospitali ya Kagondo ina chakula cha kuwatosha wagonjwa 60 kwa siku 10. Iwapo wataongezeka wagonjwa 40 zaidi, chakula hicho kitatosheleza kwa siku ngapi? A 3                      B 4                      C 6 ✓ D 5                      E 7.	$\begin{array}{r} 40 \text{ wabo} \quad \text{Siku} \\ 60 \quad 10 \quad 10 \\ \hline 60 \quad 10 \\ 40 \quad 10 \\ \hline 10 \quad 06 \quad 100 \\ \hline 10 \quad 06 \quad 100 \\ \hline 10 \quad 06 \quad 100 \end{array}$
46.	Mama Bwere aliweka sh.300,000 katika akaunti ya benki ya akiba inayotoa kiasi cha riba ya $7\frac{1}{2}\%$ kwa mwaka. Je, itamchukua muda wa miaka mingapi kupata faida ya sh.45,000? A 1                      B 2                      C 3 D 4                      E 5.	$\begin{array}{r} 7\frac{1}{2}\% \times 300000 \\ \hline 15 \\ 300000 \\ \hline 45000 \\ \hline 265000 \end{array}$
47.	Rahel alitoa punguzo la asilimia 25 kwa bidhaa zote dukani mwake. Je redio iliyokuwa ikiuzwa sh. 100,000 kabla ya punguzo, bei yake ya sasa ni shilingi ngapi? A 7,500                      B 25,000                      C 75,000 D 125,000                      E 175,000.	$\begin{array}{r} 25 \\ 100,000 \\ \hline 25 \\ \hline 250000 \\ \hline 250000 \end{array}$
48.	Shamba la ufugaji kuku la Kamunonge liliuza kuku 1995 kwa sh.3,990,000. Je, bei ya wastani kwa kuku mmoja ilikuwa shilingi ngapi? A 1,500                      B 2,250                      C 2,500 D 1,800                      E 2,000.	$\begin{array}{r} 3990000 \\ \hline 1995 \\ \hline 91115 \end{array}$
49.	Bwana Sakieli alikuwa na vitalu 45 kwa ajili ya kupanda miche 10,350 ya matunda. Alipanda kiasi sawa cha miche katika kila kitalu. Je, kila kitalu kilipandwa miche mingapi? A 230                      B 220                      C 203 D 234                      E 245.	

NA	SWALI	SEHEMU YA KAZI
50.	<p>Shukuru alifanya majaribio matano katika maandalizi ya Mtihani wa Kumaliza Elimu ya Msingi 2011 na kupata wastani wa alama 63. Ikiwa alama za majaribio manne zilikuwa 54, 48, 78 na 60, je alama za jaribio la tano zilikuwa ngapi?</p> <p>A 48                      B 60                      C 61 D 65                      E 75.</p>	$\begin{array}{r} 54 \\ 48 \\ \hline 102 \\ 482 \\ \hline 174 \\ 60 \\ \hline 234 \end{array}$ $\begin{array}{r} 234 \\ 234 \\ \hline 0 \end{array}$