

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

04

HISABATI

Muda: Saa 2

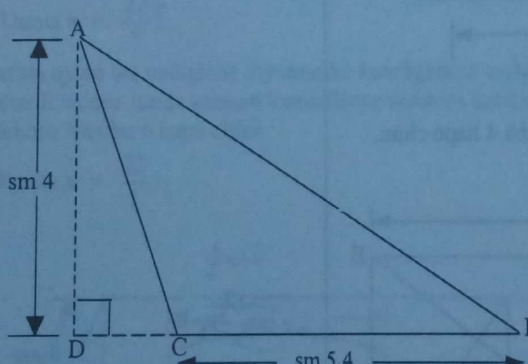
Septemba 29, 2004 Asubuhi

Maelekezo

1. Karatasi hii ina maswali 50.
2. Jibu maswali yote.
3. Andika majibu yote katika karatasi ya kujibia uliyopewa.
4. Simu za mkononi **haziruhusiwi** katika chumba cha Mtihani.
5. Andika Namba yako ya Mtihani katika karatasi yako ya kujibia.

Karatasi hii ina kurasa 7 zenye maandishi.

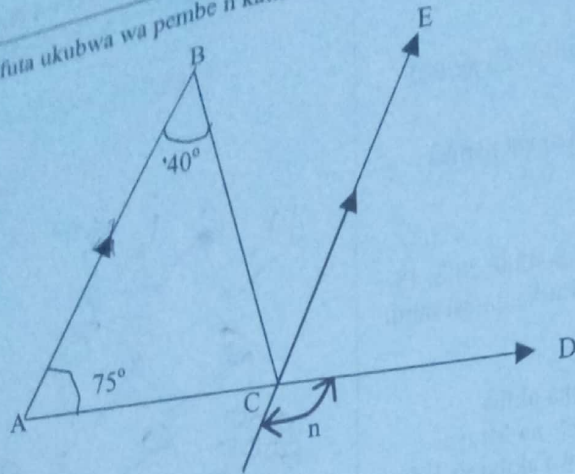
| NA. | MASWALI | SEHEMU YA KAZI | | | | | | | | | |
|-----|---|--|---|----|---|-----|----|---|--|----|--|
| 1. | $2144 - 1632 =$ | $\begin{array}{r} 2144 \\ -1632 \\ \hline 511 \end{array}$ | | | | | | | | | |
| 2. | $54.12001 + 87.0018 =$ | $\begin{array}{r} 54.12001 \\ +87.0018 \\ \hline 141.12181 \end{array}$ | | | | | | | | | |
| 3. | $2\frac{2}{3} + 4\frac{1}{4} =$ | $2\frac{2}{3} + 4\frac{1}{4} = 6\frac{11}{12}$ | | | | | | | | | |
| 4. | $7410 + 789 =$ | $\begin{array}{r} 7410 \\ +789 \\ \hline 8199 \end{array}$ | | | | | | | | | |
| 5. | $12\frac{1}{11} - 3\frac{1}{5} =$ | $12\frac{1}{11} - 3\frac{1}{5} = 9\frac{4}{55}$ | | | | | | | | | |
| 6. | $\frac{4}{9} \div 4\frac{1}{3} =$ | $\frac{4}{9} \div 4\frac{1}{3} = \frac{4}{9} \times \frac{3}{13} = \frac{4}{39}$ | | | | | | | | | |
| 7. | $975 \times 74 =$ | $\begin{array}{r} 975 \\ \times 74 \\ \hline 3900 \\ +68250 \\ \hline 72150 \end{array}$ | | | | | | | | | |
| 8. | Badili $8\frac{4}{9}$ kuwa desimali. | $8\frac{4}{9} = 8.444\ldots$ | | | | | | | | | |
| 9. | $2356 \div 19 =$ | $2356 \div 19 = 124$ | | | | | | | | | |
| 10. | $2 + 4 \times 3 =$ | $2 + 4 \times 3 = 14$ | | | | | | | | | |
| 11. | Badili $1\frac{1}{25}$ kuwa asilimia. | $1\frac{1}{25} = 1.04 = 104\%$ | | | | | | | | | |
| 12. | $5\frac{3}{4} \times 7\frac{1}{2} =$ | $5\frac{3}{4} \times 7\frac{1}{2} = 42\frac{3}{4}$ | | | | | | | | | |
| 13. | Badili 0.75% kuwa sehemu. | $0.75\% = \frac{3}{400}$ | | | | | | | | | |
| 14. | $24.35 \times 0.025 =$ | $24.35 \times 0.025 = 0.60875$ | | | | | | | | | |
| 15. | Badili 0.012 % kuwa desimali. | $0.012\% = 0.00012$ | | | | | | | | | |
| 16. | $4\frac{1}{5} + 3\frac{2}{7} =$ | $4\frac{1}{5} + 3\frac{2}{7} = 7\frac{13}{35}$ | | | | | | | | | |
| 17. | <table border="1"> <tr> <td>km</td> <td>m</td> <td>sm</td> </tr> <tr> <td>6</td> <td>800</td> <td>40</td> </tr> <tr> <td>x</td> <td></td> <td>15</td> </tr> </table> <p>Andika jibu katika km, m na sm.</p> | km | m | sm | 6 | 800 | 40 | x | | 15 | $\begin{array}{r} 6 \text{ km} \\ + 800 \text{ m} \\ + 40 \text{ sm} \\ \hline 6 \text{ km } 840 \text{ m } 40 \text{ sm} \end{array}$ |
| km | m | sm | | | | | | | | | |
| 6 | 800 | 40 | | | | | | | | | |
| x | | 15 | | | | | | | | | |
| 18. | Basi la Dosmeza liliondoka Dar es Salaam saa 3 na dakika 10 asubuhi na likatumia muda wa saa 9 na dakika 15 kufika mjini Mbeya. Je, basi hilo lilifika Mbeya saa ngapi? (Andika jibu katika utaratibu wa saa 24). | $3:10 + 9:15 = 12:25$ | | | | | | | | | |
| 19. | Tafuta jumla ya nyuzi za ndani za umbo bapa lenye pande 8. | $8 \times 1 = 8$ | | | | | | | | | |
| 20. | $\sqrt{1.44} - \sqrt{0.0144} =$ | $1.2 - 0.12 = 1.08$ | | | | | | | | | |
| 21. | Tafuta kigawe kidogo cha shirika (KDS) cha 28, 32, 56 na 64. | $28 \times 32 \times 56 \times 64 = 65536$ | | | | | | | | | |

| NA. | MASWALI | SEHEMU YA KAZI |
|-----|--|---|
| 22. | Tafuta kigawo kikubwa cha shirika (KKS) cha 24, 156, na 180. | $\frac{72}{\frac{72}{4}}$ |
| 23. | Orodhesha namba witiri zote zilizopo kati ya 20 na 100 zinazogawanyika kwa 7. | |
| 24. | Andika namba inayofuata katika mfululizo wa namba ufuatao : 11, 6, 1, -4, —. | 11, 6, 1, 4 |
| 25. | Tafuta wastani wa namba zifuatazo:- 50.8, 43.9, 28.2, 48, 8, 31.1, 45.6, 50 na 37.6. (Andika jibu katika nafasi mbili za desimali). | 50.8 43.9 28.2 48 8 31.1 45.6 50 37.6 |
| 26. | Ikiwa katika mwaka mmoja Isdori huweka akiba sh.9,000/=, Nuta huweka akiba sh.6,000/= na Mtuya huweka akiba sh.2,000/=. Nini uwiano wa akiba ya Isdori ukilinganisha na akiba ya Nuta kwa mwaka? | $\frac{9000}{6000} = \frac{3}{2}$ |
| 27. | Tafuta thamani ya m katika mlinganyo ufuatao $\frac{m+7}{m+2} = 3.$ | $\frac{m+7}{m+2} = 3$ |
| 28. | Iwapo thamani ya $m = 3$, $a = 2$, $b = 2$ na $c = 3$, tafuta thamani ya $n^2 = 8m(an - 2bn + 5cn)$. | $n^2 = 8m(an - 2bn + 5cn)$ |
| 29. | Rahisisha: $5a - 3\frac{1}{2}b + 9b + 3a - 7\frac{1}{2}a =$ | $5a - 3\frac{1}{2}b + 9b + 3a - 7\frac{1}{2}a =$ |
| 30. | Tafuta eneo la pemetatu ABC katika Mchoro Namba 1 hapo chini. |  |

MASWALI

NA.

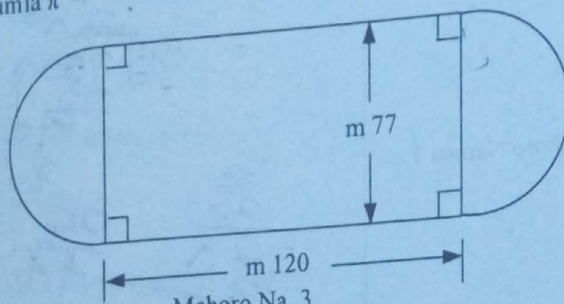
31.

Tafuta ukubwa wa pembe n katika Mchoro Namba 2.

Mchoro Na. 2

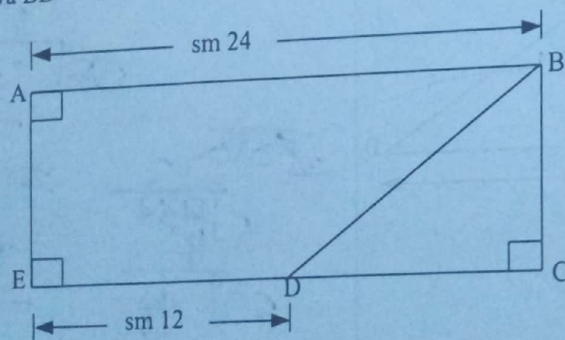
32.

Mchoro Namba 3 hapo chini unaonesha kiwanja cha michezo. Ikiwa mwanariadha atazunguka kiwanja hicho mara nne atakuwa amekimbia umbali wa meta ngapi?

(Tumia $\pi = 22$)

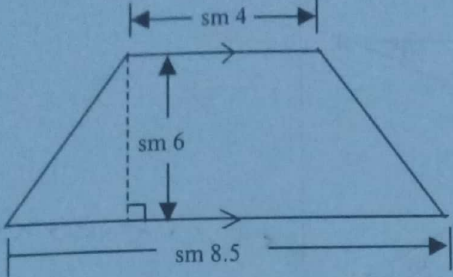
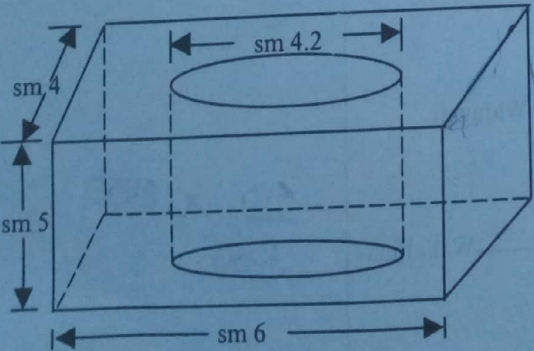
Mchoro Na. 3

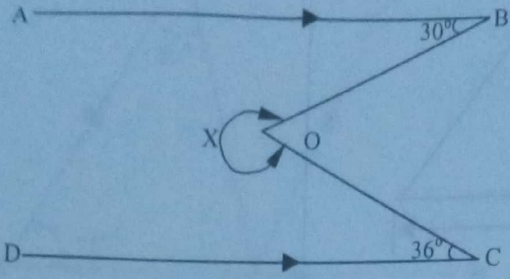
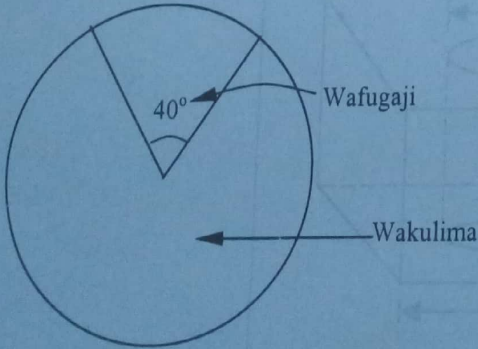
33.

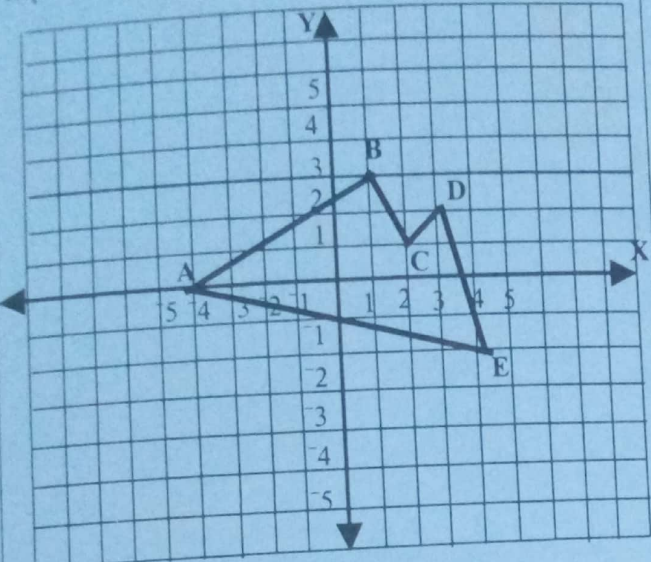
Tafuta urefu wa \overline{BC} katika Mchoro Namba 4 hapo chini, ikiwa $\overline{BD} = \text{sm } 15$.

Mchoro Na. 4

24
 $\frac{12}{38}$

| NA. | MASWALI | SEHEMU YA KAZI |
|-----|--|--|
| 34. | <p>Tafuta eneo la trapeza iliyooneshwa katika Mchoro Namba 5:</p>  <p>Mchoro Na. 5</p> | |
| 35. | <p>Ikiwa eneo la duara ni $\text{sm}^2 2,464$. Tafuta kivimbe cha duara hilo. (Tumia $\pi = \frac{22}{7}$)</p> | |
| 36. | <p>Jumla ya eneo la nyuso za mcheduara uliofunguliwa upande mmoja ni mara mbili ya eneo la kitako. Tafuta kimo cha mcheduara huo, iwapo nusu kipenyo cha kitako ni $\text{sm} 21.7$. (Tumia $\pi = \frac{22}{7}$).</p> | |
| 37. | <p>Tafuta eneo la nyuso za mchemstatili uliofungwa pande zote wenye upana wa $\text{sm} 8$, urefu wa $\text{sm} 12$ na kimo cha $\text{sm} 10$.</p> | |
| 38. | <p>Ujazo wa mcheduara ni $\text{sm}^3 36,300$. Tafuta kimo chake ikiwa eneo la kitako chake ni $\text{sm}^2 1,815$. (Tumia $\pi = \frac{22}{7}$).</p> | <p>$\frac{22}{7} \times 36300 \div 1815 = 36$</p> <p>$36 \times 36 = 1296$</p> <p>$1296 \div 36 = 36$</p> <p>36</p> |
| 39. | <p>Tafuta ujazo wa malighafi iliyotumika kutengeneza mchemstatili wenye tundu katikati kama ilivyooneshwa katika Mchoro Namba 6 hapo chini. (Tumia $\pi = \frac{22}{7}$).</p>  <p>Mchoro Na. 6</p> | <p>$4.2 \times 4.2 \times 3.14 \times 5 = 137.76$</p> <p>137.76</p> |

| NA. | MASWALI | SEHEMU YA KAZI |
|-----|---|--|
| 40. | <p>Tafuta ukubwa wa pembe X katika Mchoro Namba 7 hapo chini.</p>  <p>Mchoro Na. 7</p> | $x = 20 \quad x + 40 \quad x + 5$ $\begin{array}{r} 63 \\ 20 \\ \hline 13 \end{array}$ |
| 41. | <p>Tafuta thamani ya X katika umbo lenye pembe saba zifuatazo ikiwa pembe saba za ndani za umbo hilo ni:</p> | |
| 42. | <p>Iwapo muda wa kufanya kazi kwa siku ni saa kumi, watu kumi na wawili wana uwezo wa kulima shamba kwa wiki tatu. Je, ni saa ngapi zitatumika kwa siku, ikiwa watu kumi na watano watafanya kazi hiyo hiyo kwa siku kumi na nne?</p> | |
| 43. | <p>John aliweka fedha yake benki kwa muda wa miaka 10 na kupata faida ya sh.4,900/=. Iwapo benki hiyo hutoa faida ya $2\frac{1}{2}\%$ kwa mwaka, tafuta kiasi cha fedha alizoweka benki.</p> | |
| 44. | <p>Umbali kutoka Kona hadi Kidunula ni kilometa 40. Je Samweli atatumia muda wa saa ngapi kutoka Kona hadi Kidunula, iwapo atatembea meta 10 kwa sekunde?</p> | $\begin{array}{r} 2 \\ 360 \overline{) 800} \\ \underline{720} \\ 80 \end{array}$ |
| 45. | <p>Mchoro Namba 8 hapo chini kwa njia ya pai, unaonesha wafugaji na wakulima wa kijiji cha Mtakuja. Iwapo kijiji hicho kina wafugaji 800, tafuta idadi ya wakulima katika kijiji hicho.</p>  <p>Mchoro Na. 8</p> | $\begin{array}{r} 40 \times 800 \\ \hline 360 \end{array}$ |

| NA. | MASWALI | SEHEMU YA KAZI |
|-----|---|----------------|
| 46. | <p>Andika majira ya nukta A katika Mchoro Namba 9 hapo chini:</p>  <p>Mchoro Na. 9</p> | |
| 47. | <p>Mariam alimtumia kaka yake simu ya maandishi ifuatayo:</p> <p>JOHO MUSSA SLP 403 KIBAHA FIKA NYUMBANI MWANAO YUPO POLISI MARIAM MUSSA</p> <p>Ikiwa Posta hutoza shilingi 45/= kwa kila neno, kwa maneno matatu ya mwanzo na shilingi 60/= kwa kila neno linalozidi, je, Mariam alitoa shilingi ngapi kulipia simu?</p> | |
| 48. | <p>Ikiwa pembe mbili za umbo la pembetano ni 98° na 82° na ikiwa pembe tatu zilizobakia zipo katika uwiano wa 4:6:8. Tafuta thamani ya pembe yenye uwiano wa 6.</p> | |
| 49. | <p>Rita, Ashura na Helena wana jumla ya sh. 98/=.</p> <p>Ashura na Helena kila mmoja ana shilingi nne zaidi ya fedha alizonazo Rita. Je, Rita ana shilingi ngapi?</p> | |
| 50. | <p>Doto alikuwa na shilingi 14,050/= na akanunua bidhaa zifuatazo sokoni:-</p> <p>mchele kg. $3\frac{1}{4}$ @ sh.640/=, nyama kg. $4\frac{1}{4}$ @ 1,300/=, nyanya fungu 13 @ sh.150/=, bilinganya fungu 12 @ sh.200/=, iliki pakiti 8 @ sh.80/=. Baada ya manunuzi hayo, Doto alibakiwa na kiasi gani cha fedha?</p> | |