



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

IIMVAVANYO ZONYAKA NONYAKA KUZWELONKE

IBANGA 3

IMATHEMATIKA-ISIXHOSA

ULUHLU - IPHEPHA ELINGUMZEKELO 2012

Isikhokelo sokusebenzisa imizekelo ka-ANA

1. Umbono jikelele

Uvavanyo lonyaka nonyaka (ANA) luvavanyo oludibeneyo lolwazi nezakhono ezifanele ukuphuhliswa, kubafundi bebanga lo-I ukuya kwele-6 kunye nele-9. Ukuncedisana novavanyo oluqhutywa esikolweni nokuqinisekisa ukuba abafundi bazithemba ngokwaneleyo ukuze bathathe inxaxheba ngempumelelo kwiimviwo zangaphandle, uluhlu lootitshala kunye neencutshe kwizifundo bavelise iimvavanyo eziyimizekelo ezinokusetyenziswa ngootitshala kwizifundo zoLwimi Lwasekhaya neMathematika. Unikwe imibuzo yemizekelo yemvavanyo ethatyathwe kumsebenzi wesikolo wonyaka wekharithyulam ukusuka kwikota yokuqala, eyesibini neyesithathu, kunye nesiboniso esipheleleyo sovavanyo (ANA) sebanga ngalinye. Imizekelo yovavanyo equka nesiboniso esipheleleyo soviwo zongeza kuvavanyo oluqhubekayo esikolweni olwenziwa qho kubafundi nekufuneka lungayekwa.

2. Unxulumano namanye amacebiso okufunda nokufundisa

Ngenxa yokubaluleka kokudibanisa eyindlela yokufundisa, eminye imibuzo ekwimizekelo yeemvavanyo inxulumaniswe neeNcwadi Zomsebenzi ngokwamabanga. Imizekelo yeemvavanyo ilinganiswe neemfuno zekharithyulam, kusetyenziswe amaxwebhu ekharithyulam i-National Curriculum Statement Grades R-12 (NCS) ne-Curriculum and Assessment Policy Statements (CAPS) kumabanga ngamabanga, kusetyenziswe nendlela yokuhlola esemthethweni (National Protocol for Assessment). La maxwebhu ewonke kunye nalawo isikolo siwanika utitshala ukuze enze amacebiso angawo okunceda utitshala xa elungiselela izifundo kwakunye naxa esenza uvavanyo olusesikweni.

3. Unxulumaniso nezinye izixhobo zokufunda nokufundisa

Ukuze kubekho unxulumano olufanelekileyo, eminye imizekelo yezicatshulwa nemibuzo idityaniswe kwiincwadi zokusebenzela zamabanga ngamabanga ezingqale kumgangatho wabafundi. Le mizekelo ilungelelanisiwe ukuze iqwalasele iimfuneko zeNkcazelo yeKharithyulam yeSizwe yamananga R ukuya ku 12 (NCS), iinjongo zekharithyulam, iNkcazelo yePolisi yeKharithyulam enxulumene namabanga abafundi kunye nendlela yokuhlola esemthethweni. Yonke le miqulu kwakunye neminye imiqulu enokufumaneka esikolweni izixhobo ezingundoqo ezinokusetyenziswa ukuncedisa ootitshala njengoko bequlunqa izifundo belawula nohlolo olungundoqo (uhlolo olukhulisayo).

4. Isetyenziswa njani imizekelo yovavanyo

Nangona imizekelo yovavanyo yebanga ngalinye nesifundo ngasinye yenziwe yaza yadityaniswa, utitshala akanyanzelekanga ukuba abafundi abaphendulise ngexesha elinye. Utitshala makakhethe umzekelo onombuzo onxulumene nesifundo asilungiseleleyo. Imibuzo ekhethwe kumzekelo vavanyo okanye iqela lemibuzo enokuphenduleka ngexesha elinye ingasetyenziswa ngokuye kukhula ukufunda nokufundisa ngolu hlobo:

- 4.1 Ekuqaleni kwesifundo, njengovavanyo lokuqonda nokwahlula izinto abafundi abakwazi ukuzenza/abazaziyo nezo bangakwazi ukuzenza/bangazaziyo. Ukuqonda lo mahluko kukhokhelela ekubeni abafundi bacoselelwe ukufundiswa nokuze kwakhiwe izifundo ezilungele ukulungisa ezo ngxaki banazo baze baphucule. Olu vavanyo lokuqonda lungenziwa umsebenzi wasekhaya ukonga ixesha.
- 4.2 Kwisifundo phakathi, uvavanyo olucwangcisiweyo lusetyenziswa ukuvavanya ukuba ulwazi nezakhono zabafundi ziyaphuhla na. Njengoko isifundo siqhuba lukwasetyenziswa ukuvavanya nokuqinisekisa ukuba akukho mfundi ushiyekayo kwisifundo.
- 4.3 Ukugqibezela isifundo okanye iqela lezifundo uvavanyo oludityanisiweyo luyenziwa ukuvavanya ukuba abafundi bayaqonda kwaye bayakwazi ukusebenzisa ulwazi nezakhono abazifumene kwizifundo. Inkcaza yokuba abafundi baqhube njani mabayinikwe ngoko nangoko, ngelo xesha utitshala wenza isigqibo ngeendawo ezifuna ukuphindwa kwisifundo okanye kwizifundo ukuncedisa ulwazi okanye izakhono ezingaphuhlanga.
- 4.4 Kuwo onke la manqanaba makusetyenziswe iindlela ngeendlela zokubuza, umz. indlela yokuphendula ngokukhetha kwiimpendulo azinikiweyo, imibuzo efuna impendulo yakhe, imibuzo efuna impendulo emfutshane, njalo-njalo.

Nangona uvavanyo lokufumana ukuqonda novavanyo lokwakha ulwazi lusenkuba lufutshane ngokwemibuzo, uvavanyo oludityanisiweyo lunokuquka imibuzo emininzi kuxhomekeka kumsebenzi osele wenziwe. Okubalulekileyo kukuqinisekisa ukuba abafundi baqhelaniswa nendlela yokuphendula uvavanyo olupheleleyo olufana novavanyo lukazwelonke lonyaka nonyaka (ANA).

5. Imemorandam okanye iindlela zokuphendula

Umzekelo wendlela yokuphendula okanye iimpendulo ezilindelekileyo zilungiselelwe kumzekelo wovavanyo. Ootitshala mabakhumbule ukubaimemorandam ayiniki mpendulo igqibeleleyo, Imemorandam inika nje kuphela iimpendulo ezilindelekileyo, ngoko utitshala angamnika umfundi amanqaku ngeempendulo ezahlukeneyo, ezivumelekileyo ezinikwe ngabafundi.

6. Ukugutyungelwa kwekharithulam

Kunyanzelekile ukuba ikharithulam igutyungelwe yonke kwibanga ngalinye. Imizekelo yovavanyo yebanga ngalinye ayimeli ikharithulam, ikhupha nje iisampula zovavanyo lolwazi nezakhono ezibalulekileyo kwaye zezomsebenzi wekota yokuqala ukuya kweyesithathu yonyaka Isantya sokusebenza somsebenzi ekufuneka wenziwe sinikezelwe kumaxwebhu ekharithulam (CAPS DOCUMENTS).

7. Ukuphetha

Injongo yeSebe leMfundo kukuphucula nokwakha ezona zisekelo zibalulekileyo, ukufunda nokubala kwabafundi. Uvavanyo lonyaka nonyaka sesinye sezixhobo iSebe leMfundo eisebenzisa ukuqaphela ukuba umgangatho wabafundi uyonyuka, uhleli ndawonye okanye uyehla. Izithili neziliko kulindeleke ukuba zancedise ootitshala kwaye zidlulise amacebo aluncedo ukuphucula ukufunda nokufundisa ezikolweni. Ngokusebenzisa imizekelo yokuvavanya njengeline icebiso lokufundisa, ootitshala baza kunceda abafundi baqhelane neendlela nobuchule bokuvavanya. Ukusetyenziswa kwale mizekelo kuya kunceda abafundi bafumane ulwazi olufanelekileyo baze baphuhlise nezakhono ezinxulumene nokufunda ukuze baphucule kuvavanyo lukazwelonke olulandelayo.

AMANANI, UKUBALA NOLWALAMANO

Ukusebenza ngamanani

1. Jonga umfanekiso ongezantsi.



- a. Thekelela zingaphi izinto ezisemfanekisweni. _____
- b. Zibale. _____
- c. Yenza amaqela oono ne ngale mifanekiso. _____
- d. Phawula ngo-X isiqingatha sesi zinto zisemfanekisweni.
- e. Uthini umahluko phakathi kwenani elithekelelweyo nelona nani lichanekileyo? _____
- f. Zingaphi izinto ekufuneka ndizidibanise okanye ndizithabathe ukwenza inani elithekelelweyo lilingane nenani elichanekileyo ?

g. Krwela umgca ngaphantsi kwempendulo echanekileyo.

Izinto ezisemfanekisweni ziyi_____

42 25 44 100

2. **Fakela amanani ashayiweyo.**

a. 600 , 500 , _____ , 300 , _____ , 100.

b. 4 , 8 , 12 , _____ , _____ , 24 , _____.

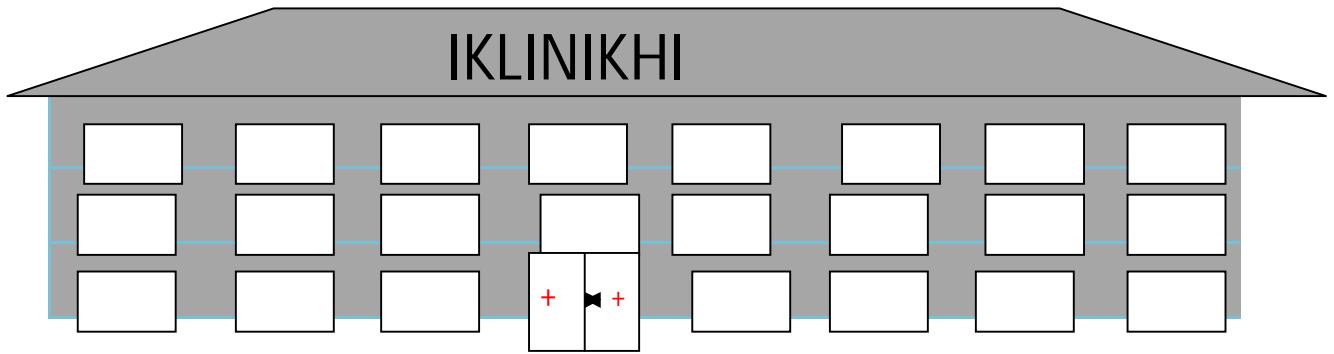
3. **Gqibezela itheyibhile.**

a.	Bala ngezi 2	128			
b.	Bala ubuya umva ngama 10	170			
c.	Bala ngono 3			9	

4. a. 173 , 172 , 171 , _____ , _____ , 168 , 167 , _____.

b. 195 , 190 , _____ , _____ , 175 , _____ , 165.

5.



I sibhedlele sinemigangatho **emithathu**.

Amanani amagumbi aqala **kumashumi alithoba anethoba** ukuya **kwikhulu**

elinamashumi amabini anesibini nj ekokuba kubonisiwe kwitheyibhile.

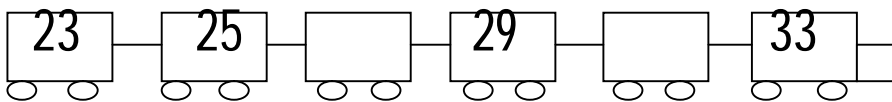
umgangatho 3		11 5		117		119	120	
umgangatho 2	106			109	110			113
umgangatho 1	99	10 0		I sango lokungena		103	104	

Bhala inani kumacango amagumbi angenamani.

Uze ufakele inani legumbi kwisivakalisi ngasinye.

- a. Igumbi lesithathu xa usuka kumgangatho wesi-2 _____
- b. Igumbi lesihlanu kumgangathu woku-1 _____
- c. Igumbi lokugqibela kumgangatho wesi-3 _____
- d. Igumbi eliphambi kwegumbi elili-114 _____
- e. Emva kwegumbi elili-105 kukho igumbi elingu _____
- f. Phakathi kwegumbi elingama-99 no101 ligumbi u _____

6. Fakela amanani ashisiweyo.



Ngowuphi umgaqo owusebenzisileyo? _____

7. Bhala eli nani 168 ngamagama. _____

8. Tshatisa inani eliyisimboli kunye nenani elibhalwe ngegama.



amakhulu amabini



amashumi amathandathu anesixhenxe



Ikhulu elinamashumi amathathu



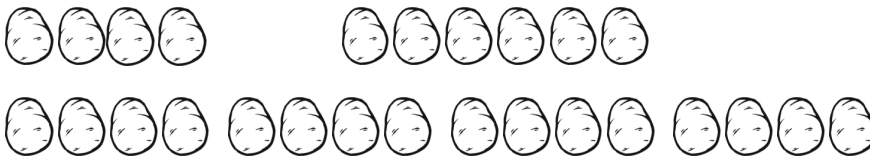
Ikhulu elinamashumi amane anesihlanu

9. Bhala inani endaweni yenani elibhalwe ngemagama.

- a. Ikhulu elinamashumi alithoba anesithoba
- b. Amashumi asixhenxe anesibhozo

10. **Jonga umfanekiso.**

Bala inani leetapile uze ubhale inani ngamagama kunye nesimboli yenani.



a. _____

b. _____

11. **Bhala inani eliza**

a. Phambi ko-88 -----

b. Emva ko-88 -----

c. Phakathi ko-88 no-90 -----

12. **Fakela $>$, $<$ okanye = ukwenza isivakalisi samanani esichanekileyo.**

$$24 + 10 \text{ ____ } 10 \times 10$$

13. $101 > 122$

Ingaba isivakalisi samanani esingentla siyinyani?

Faka (\checkmark) kwibhokisi enempendulo echanekileyo

Ewe	Hayi
-----	------

14. **Bhala yinyani okanye asiyonyani.**

a. $37 + 20 = 50 + 8$ -----

b. $190 > 119$ -----

c. $18 \div 2 < 9 \times 2$ -----

15. **Cwangcisa amanani uqale kwelincinci ukuya kwelikhulu.**

99 , 13 , 35 , 70 , 9

16. **Amanani amahlanu acwangcisiwe kuqalwe ngelikhulu kwagqityelwa ngelincinci.**

Rhangqela unobumba onempendulo echanekileyo.

A. 17 , 35 , 53 , 59 , 95

B 59 , 17 , 95 , 35 , 53

C. 95 , 59 , 53 , 35 , 17

D. 53 , 17 , 59 , 95 , 35

17. **Bhala u-Ewe okanye u-Hayi.**

Ingaba la manani alandelayo acwangciswe ukuqala kwinani elincinci ukuya kwelikhulu?

24 , 27 , 30 , 51 , 64 , 99 -----

18. **Bhala ixabiso lendawo lenani elikrwelelwe umgca ngaphantsi.**

a. 56 -----

b. 74 -----

19. **Lithini ixabiso lenani elikrwelelwe umgca?**

a. 63 -----

b. 19 -----

20. **Cazulula amanani owanikiweyo.**

61 -----

50 -----

21. **Rhangqela unobumba onempendulo efanekileyo.**

I xabiso lendawo lika 3 ku 93

A. Imivo

B. Amashumi

C. Amakhulu

22. **Phawula ibhokisi enempendulo echanekileyo ngo "X".**

I xabiso lika 6 ku 61 ngu

60

6

23. **Yakha lamanani alandelayo.**

$100 + 80 + 9 =$ _____

$100 + 100 + 0 + 0 =$ _____

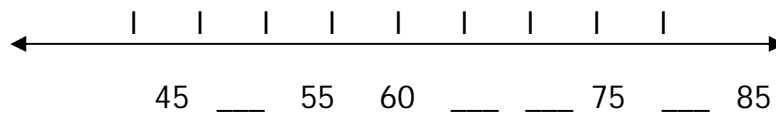
$100 + 40 + 30 + 2 + 1 =$ _____

24. a. $136 = \underline{\quad} + \underline{\quad} + \underline{\quad}$
 b. $36 = \underline{\quad} + \underline{\quad}$

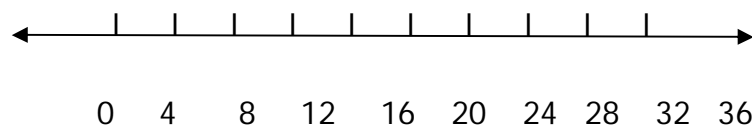
25. **Fakela amanani ashiyiweyo kule theyibhile.**

Phindaphinda inani	Inani	Isiqingatha senani
	42	
	37	
	34	

26. **Fakela amanani ashiyiweyo kumgca manani.**



27. a. **Bonisa indlela yokusebenzisa umgca-manani ukudibanisa u16 no12.**



- b. **Phinda phinda impendulo oyifumene kumbuzo-(a) -----**
- c. **Bhala isiqingatha sempendulo oyifumene ku-(a) -----**

28. **Rhangqela unobumba onempendulo echanekileyo.**

Isiqingatha sama 50 ngu ___

A. 20 B. 15 C. 24 D. 25

29. Bekukho iitoti eziyi-67 zesiselo esibandayo efrjini. Utata wabeka ezinye eziyi-32.

Zingaphi iitoti zesiselo ngoku efrjini? -----

30. UBob uqokelele iibhotile zeglasi ezili 122 elungiselela iphulo lokubuyisela into kwinto ebiyiyo. Eziyi-38 zophukile.

Zingaphi iibhotile ezingophukanga? -----

31. Abafundi bebanga lokuqala baqokelele iikhowuni ze-ayiskhrim ezingama-67. Abafundi bebanga lesibini baqokelele iikhowuni ze ayiskhrim ezingama-56 ze abafundi bebanga lesi-3 baqokelela ezingama-45.

Zingaphi iikhowuni ze ayiskhrim abaziqokeleleyo abafundi bebonke? -----

32. Kukho amabhakethi angamashumi amabini,ibhakethi nganye inee a-pile ezintlanu. **Zingaphi ii-apile ezikula mabhakethi zidibene?**

33. UBusi ebeneetreyi zamaqanda ezilishumi elinesithandathu. I treyi nganye inamaqanda alishumi elinesibini . USam uphathela uBusi ezinye iitreyi ezilishumi elinesibini . **Zingaphi ngoku iitreyi anazo u Busi ? -----**

34. USally uthenge iipakethi ezilishumi zelekese . Ipakethe nganye ixabiso i R3,00. **Ubhatele malini ngezi lekese?** -----
35. UDonald uneelekese ezi ngamashumi alithoba ufuna ukuzahlula ngokulinganayo phakathi kwabatshana bakhe abathathu. Umtshana omnye uza kufumana iilekese ezingaphi? -----
36. Umama ubhake ikeyiki ezingamashumi amabini anesine, uzahlule ngokulinganayo phakathi kwabantwana bakhe abane. Umntwana emnye ufumene ikeyiki ezingaphi? -----

37. **IMALI**

a. **Bhala imibala yemali yamaphepha nganye yase Mzantsi Afrika.**











b. Zingaphi iinkozo ze R2, 00 kwezi nkozo zilandelayo? -----



c. Gqibezela:

$$5c+20+50c+10c= \text{-----}$$

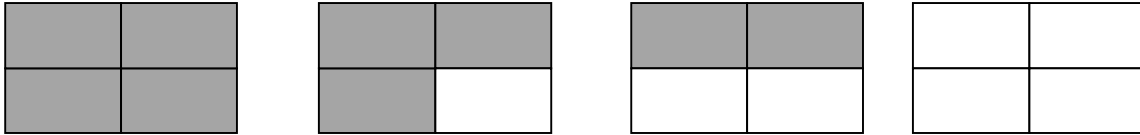
38 a. Uvusi ufuna ukuthenga ibhola exabisa ama-R90. Uqokelele ama-R45 okwa ngoku. Yimalini ekufuneka eyiqokelele ukuze iphelele imali yokuthenga ibhola. -----

b. Ukuba uVusi ufuna ukuthenga iibhola ezimbini ezixabisa ama-R34 inye. Yimalini ayifunayo ukuze athenge iibhola?-----

c. Umama ka Lebo unike uLebo i50c waze utata wakhe wamnika ii- 20c ezine. Yimalini imali kaLebo xa iyonke? -----

IPATHENI, IMISEBENZI NE ALJIBRA

1. Faka umbala kumfanekiso wokugqibela ukugqibezela ipatheni.



Chaza ipatheni ngawakho amazwi .

2. Zoba idayagram elandelayo kule patheni yedayagram ilandelayo .

3. Yenza eyakho ipatheni usebenzise imilo.

4. Fakela amanani ashayiweyo

60 , 70 , 80 , _____ , _____ , _____ .

5. Umama kaSusan ubhake iipitsa ezilishumi zonke wazisika zanamaqhekeza alinganayo.

Gqibezela let heyibhile.

Inani leepitsa	1	2	3	4	10
Inani lamaqhekeza	5		15		

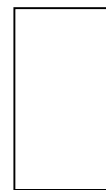
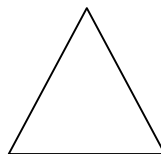
6. **Bhala amanani amane alandelayo kuluhlu ngalunye.**

a. 412 ; 410 ; 408 ; ____ ; ____ ; ____ ; ____

b. 123 ; 126 ; 129 ; ____ ; ____ ; ____ ; ____ .

ISITHUBA NEMILO

1. **Mangaphi amacala esimo ngasinye ?**



2. Tshatisa igama ngalinye nesimo esichanekileyo.

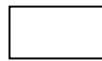
Isikwere



Uxande



Isangqa

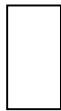


Unxantathu

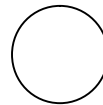


3. Bhala amagama ezi milo zilandelayo.

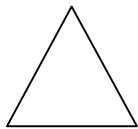
a.



b.



c.



d.



4. Zoba isimo phantsi kwegama.

a. Unxantathu

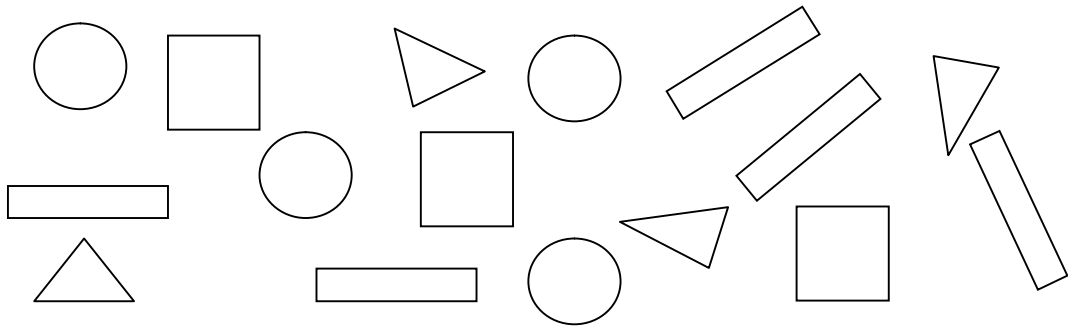
b. Uxande

5. **Sebenzisa amanani abhalwe kwezimilo wenze izivakalisi zibeyinyani.**



- a. I sangqa siphawulwe ngo _____
- b. Uxande luphawulwe ngo _____
- c. I sikwere siphawulwe ngo _____
- d. Unxantathu uphawulwe ngo _____

6.



Faka umbala.

- a. Oonxantathu babe luhlaza okwengca.
- b. I zikwere zibe bomvu.
- c. Amaxande abe zuba.
- d. I zangqa zibe mthubi.

UMLINGANISELO

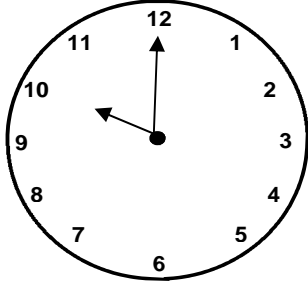
1. Funda ikhalenda ka Februwari 2012 uze ugqibezele izivakalisi ezilandelayo.

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29			

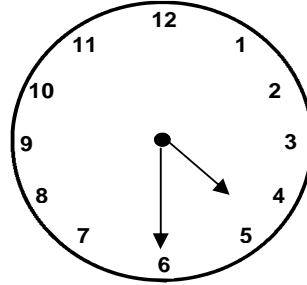
- a. UFebruwari 2012 uneentsuku ezinga _____ .
- b. Inyanga kaFebruwari iqala ngoLwe _____ .
- c. Iveki yokuqala ineentsuku ezi _____.
- d. UFebruwari 2012 uphela ngoLwe _____.
- e. Ku Februwari 2012 kukho iicawe eziyi _____.
- f. Kukho iiveki ezigcweleyo ezi_____ ku Februwari 2012.
- g. Ngomhla we-7 kuFebruwari usapho lwakwaMoloi lwaya kwiholide. Lwabuya ngomhla we-23 kuFebruwari. Usapo lwakwaMoloi lwahlala intsuku zeholide_____.
- h. Abafundi bebanga lesi-3 baya khambo lweentsuku ezi 16 oluya eKruger National Park. Bahamba ngomhla we-13 kuFebruwari 2012. Babuya ngomhla we _____.

2. **Bhala ixesha elibonisiweyo kwezi wotshi zilandelayo.**

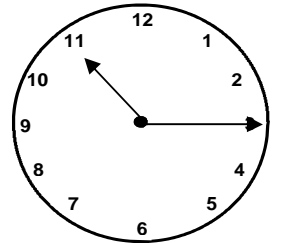
a.



b.

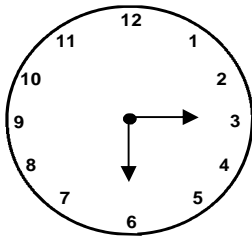


c.

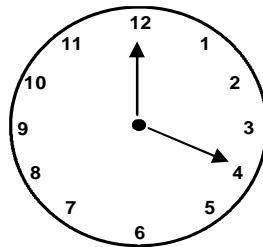


3. **Bhala ixesha elichanekileyo kwezi wotshi zilandelayo ubhale ngokwedijital nangokwewotshi yamanani.**

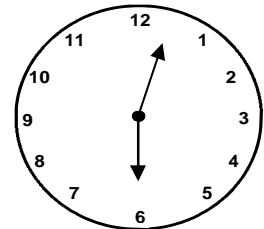
a.



b.

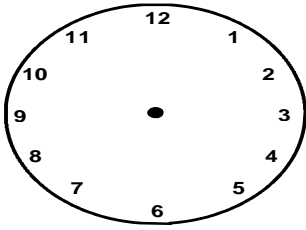


c.

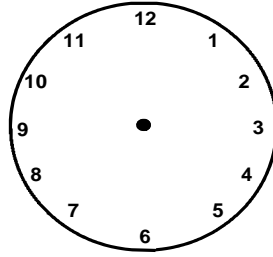


4. Zoba amasiba kwiwotshi nganye kwezi zilandelayo ubonise ixesha elifunekayo.

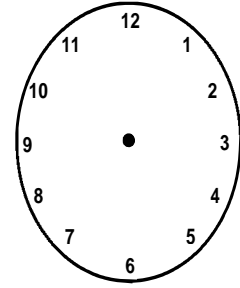
a.



b.

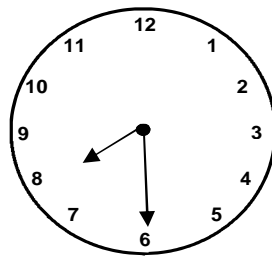
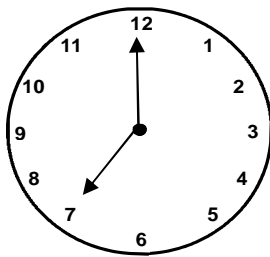


c.



icala emva kwentsimbi yethoba: yintsimbi yeshumi elinanye: umkhono emva kwentsimbi yesi xhenxe

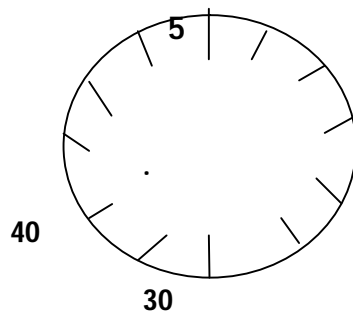
5. **ULiza uya esikolweni.**



Umka kowabo ngentsimbi ye-7:00 Ufika esikolwe nge-7:30

ULiza uhamba imizuzu engama _____ ukuya esikolweni.

6. **Bhala imizuzu eshiyiweyo kule wotshi uyinikiweyo.**



7. **Gqibezela:**

Ukuba ibhotile enye yesiselo esibandayo igcwalisa iiglas ezi 4.

a. iibhotile ezi 2 zigcwalisa iiglas ezi_____.

b. iibhotile ezi 5 zigcwalisa iiglas ezi_____.

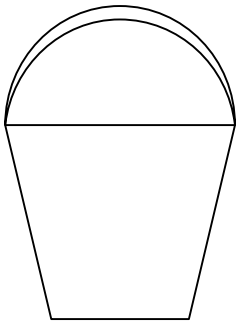
c. iibhotile ezi_____zigcwalisa iiglas eziyi-40.

d. iibhotile ezi_____zigcwalisa iiglas eziyi-12.

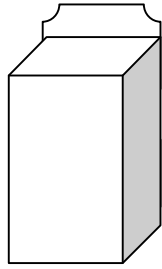
8. **Bhala umthamo wezinkonkxa zilandelayo ukusuka kowona mncinci ukuya kowona mkhulu.**

500m /yetoti yej usi 5m /letispuni 250m /yekomityi 5/yebhakethi
2/yebhotile ye coke

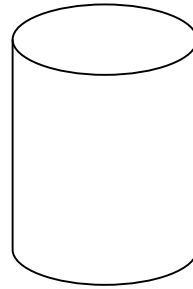
9. Jonga imifanekiso engezantsi uze uphendule imibuzo elandelayo.



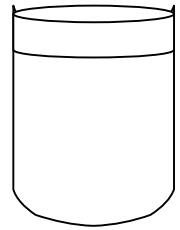
5/



1/



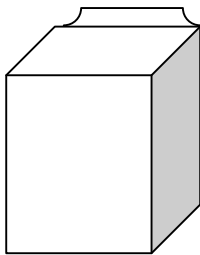
10/



2/

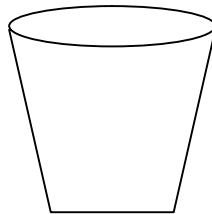
- a. Zingaphi iibhotile ezizi 2/ ezifunekayo ukugcwalisa umgqomo ozi 10/?
- b. Zingaphi iinkonkxa ze-1/ endinokuzizalisa kwinkonkxa eyi 2/

A



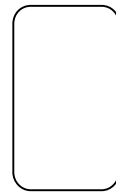
2/

B



1/

C



500 ml

Funda imifanekiso engasentla uchaze ukuba uyangqinelana nesivakalisi ngokubhala uewe okanye uhayi.

- a. Umthamo ka A uphindaphinda oka B .
- b. Umthamo ka B uphindaphinda oka A.
- c. Umthamo ka C uphindaphinda oka A.
- d. Umthamo ka B uphindaphinda oka C.

UKUSEBENZA NGOLWAZI

1. Abafundi bebanga lesithathu bacelwe ukuba bakhethe imibala abayithandayo.

I ziphumo zidweliswe ngezantsi.

Umbala	Inani labafundi
bomvu	16
zuba	20
luhlaza	12
mthubi	10

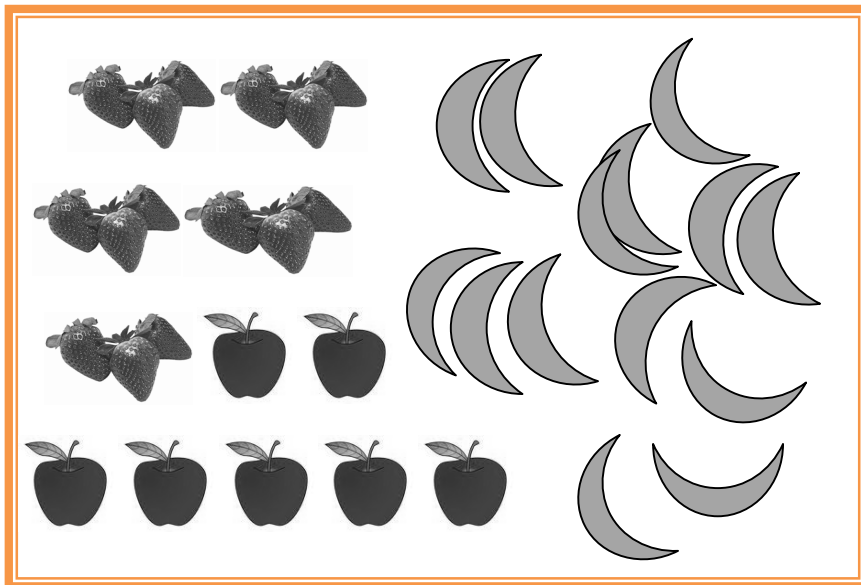
Sebenzisa ulwazi olukwithebhile ukugqibezela igrafu yesitena. Uze ugqibezele izivakalisi ezilandelayo.

I mibala ethandwa ngabafundi

Inani la bafundi	20				
	19				
	18				
	17				
	16				
	15				
	14				
	13				
	12				
	11				
	10				
	8				
	7				
	6				
	5				
	4				
	3				
	2				
	1				
	0				
		bomvu	zuba	luhlaza	mthubi

I mibala

- a. _____ Abafundi aba_____ babuzwe ngemibala abayithandayo
- b. Owona mbala ungathandwayo ngu_____.
- c. Abafundi aba _____ bakhetha umbala obomvu kunomthubi
- d. Inani labafundi abakhetha umbala oluhlaza komthubi bebonke ba_____.
- e. Inani labafundi abakhetha umbala oluhlaza komthubi bebonke ba_____.
2. Ivenkile yeziqhamo inikezele ngebhokisi yeziqhamo kusapho lwakwaTshabalala. Ibhokisi ibineziqhamo ezahlukeneyo nj engoko kubonisiwe kumfanekiso ongezantsi.



Gqibezela le theyibhile.

Iindidi zeziqhamo	Inani ngeethali	inani
I apile		
I bhanana		
I qunube		

