NAME……ADM NO……CLASS……

MTANDAO KCSE ONLINE
TERM 1 END-TERM EXAM 2013
MATHEMATICS FORM 1
TIME: 1HR 45 MINUTES

ATTEMPT ALL THE QUESTIONS AND SHOW ALL YOUR WORKINGS

1) Simplify the following expressions;

a) $\frac{8 - 3.5 \div 0.7 + 2.85}{3}$ (3mks)

b) $\frac{7(2k+3) + 4k-3}{2(k+1) + 4k+7}$ (3mks)

2) Round off ;
   a) 468.3894 to two decimal places (1mk)

b) 43264 to the nearest on thousand
(1mk)

3) What is the Greatest Common Division of 33, 121 and 143?
(1mk)

4) Express the following numbers in terms of their prime factors;

i) 360
(2mks)

ii) 90
(2mks)

5) What is the place value and total value of digit 5 in 8950403?
(2mks)

6) A farmer sold milk for all the day of the week. The table bwlow shows the amount of milk the farmer sold for six of the seven day

Day	Mon	Tue	Wed.	Thur	Fri		Fri	Sat	Sun
Amount in Kg	410	315	400	410		300	420		

One kilogram of milk was sold at sh.18. If the mean sale per day was 380kg, how much more money did the farmer get from selling milk on Friday than on Tuesday? (4mks)

7) What is the value of $\frac{1\frac{1}{4} \times 2\frac{1}{2}}{3\frac{1}{2} - 2\frac{1}{4}}$ (2mks)

8) Below is a cylinder closed on both ends. Find the area of the curved surface? (Takeπ=3.14) (2mks

9) When P=3, k=p+n, r=5 and n=r-3, work out (2mks)

$\frac{p^2+k}{r+2k}$

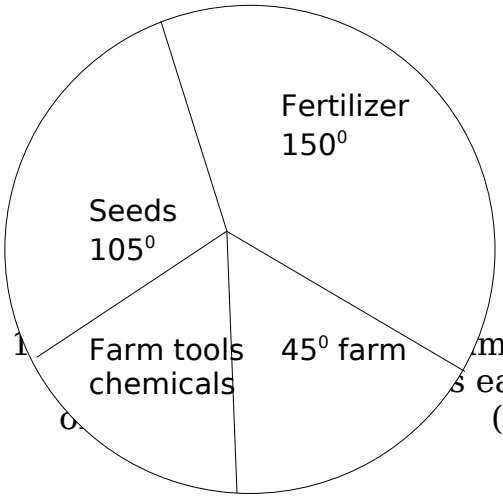
10) What is the LCM of 45, 12, and 9?
(2mks)

11) The diagonal of a rectangular piece of paper is 10cm. If its length is 8cm, what is its perimeter?
(3mks)

12) Solve for x in $x - {}^{4x}/_{5} = 3$
(2mks)

13) If the price of an item is increased by 12%, the increase in the price is sh.90. Find the new price of the item.
(3mks)

14) The pie chart below shows how a farmer spent his income of sh.90,000. Calculate the much he spent on farm tools.
(2mks)



1 mission of 10% for all the goods he sells. One s each costing sh.250. How much did the owner o
(3mks)

16) The diagram below shows four straight lines. The two triangles so formed are isosceles as indicated. Find the value of angle x.
(2mks)

17) A cylindrical solid of height 40cm and radius 7cm is cut into two equal parts along the diameter. What is the volume of each part in cm^3? (Take $\pi = {}^{22}/_{7}$) (2mks)

18) The masses of nine pupils were taken in kilograms as follows;

40, 37, 34, 36, 45, 37, 38, 43, and 41

What is

a) the mode of their masses
(1mk)

b) The median of their masses
(1mk)

c) The mean of their masses
(2mks)

19) On the figure below, draw perpendicular bisectors of lines PQ and QR to meet at point X

What is the length of line QX
(2mks)

