MATHEMATICS PAPER 1 - KCSE 2019 ALLIANCE GIRLS MOCK EXAMINATION (WITH MARKING SCHEME)

SECTION I (50Mrks)
Answer ALL the Questions in the section

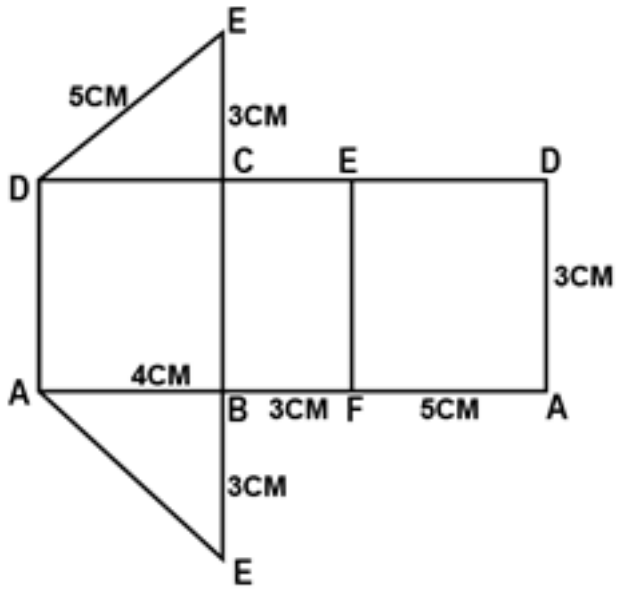
1. Evaluate: 3mks

$$\frac{2\frac{1}{2}\ of\ 1\frac{3}{4} - 5\frac{1}{4}}{1\frac{2}{5} + 2(1\frac{1}{4} - 2\frac{3}{4})}$$

2. An electrician made a loss of 30% by selling a multi plug at Sh. 1400. What profit would he have made if he sold the multi plug at sh 2300. 3mks
3. Simplify 2mks

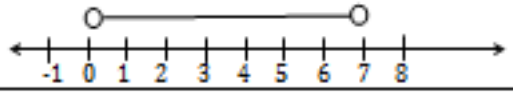
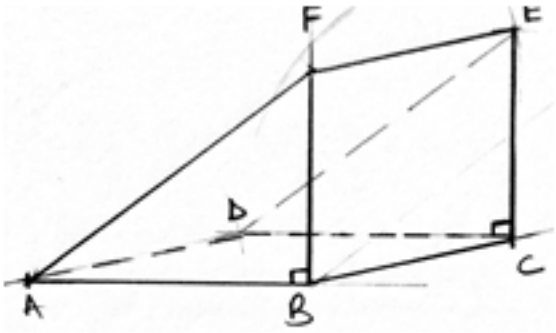
$$\sqrt{\frac{12x^4y^{-1}z^5}{3x^{-2}y^{-3}z^3}}$$

4. Solve the following inequalities and represent the solutions on a number line
   X + 1≤ 4x – 5< 3x + 2
5. The figure below shows a net of a solid.



   a. Sketch the solid of the net showing the hidden edges with broken lines. 2mks
   b. Find the surface area of the solid. 2mKS
6. Determine the quartile deviation for the following distribution. 3mks
   3,4,9,5,4,7,6,2,1,6,7,8,9
7. Given that $2^{3/2x} = 4096$, find the value of x . 2mks
8. It would take 15men 8days to dig a trench of 240m long. Find how many days it would take 18men to dig a trench 360meters long working at the same rate. 3mks
9. Use logarithms to evaluate. 4mks

MARKING SCHEME

1	5/2 x 7/4 = 35/8 – 21/4 = -7/8 5/4 – 11/4 = -6/4 x 2= -3 7/5 x ¯ 5/-8 -7/8 x 5/-8 = 35/64	M1 M1 A1
2	100/70 x 1400 = 2000 2300 – 2000 300	M1 M1 A1
3	$\sqrt{4x^6y^2z^2}$ $= 2x^3yz$	M1 A1
4	X + 1 ≤ 4x – 5 x≥ 2 4x – 5< 3 x 2 X < 7  	B1 B1 B1
5	 SA = 2 x ½ x 4 x3 + 4 x 3 + 3 x 3 + 5 x 3 = 48cm²	B1 and equal Sides B1 √ Solid show broken lines M1 A1
6	1,2,3,4,4,5,6,6,7,7,8,9,9, Q1 = $\frac{3+4}{2}$ = 3.5 Q3 = $\frac{7+8}{2}$ = 7.5	B1 (Bolt Q, & Q3