

LOGARITHMIC NOTATIONS

KCSE 1989 – 2012 Form 3 Mathematics

1.	<p>1992 Q10 P2</p> <p>Without using logarithm tables , solve for x in the equation below:</p> $\text{Log } \left(\frac{11}{1}\right) + 2\log \left(\frac{4}{11}\right) - \log \left(\frac{5}{22}\right) = 2 \log 4 - \log x \quad (3\text{marks})$
2.	<p>1993 Q4 P2</p> <p>Solve for x in the equation $2 \log_{10} x + \log_{10} 5 = 1 + 2\log_{10} 4$ (4 marks)</p>
3.	<p>1994 Q14 P2</p> <p>Find the value of x that satisfies the equation $\text{Log } (2x-11) - \log 2 = \log 3 - \log x$ (4 marks)</p>
4.	<p>1995 Q 13 P2</p> <p>Without using logarithm tables, find the value of x in the equation</p> $\text{Log } x^3 + \log 5x = 5 \log 2 - \log \frac{2}{5} \quad (3 \text{ marks})$
5.	<p>1998 Q 12 P2</p> <p>Find x if $-3 \log 5 + \log x^2 = \log \frac{1}{125}$</p>
6.	<p>1999 Q 6 P2</p> <p>Solve for x $(\log_3 x)^2 - \frac{1}{2} \log_3 x = \frac{3}{2}$</p>
7.	<p>2000 Q 5 P1</p> <p>Find the value of x that satisfies the equation</p> $\text{Log } (x + 5) = \log 4 - \log (x + 2)$
8.	<p>2001 Q 8 P2</p> <p>Solve the equation $\log (x+24) - 2\log 3 = \log (9-2x)$</p>
	<p>2003 Q 5 P2</p>

9.	Solve the equation $\log_{10}(6x - 2) - 1 = \log_{10}(x - 3)$ (3mks)
10	<p>2004 Q 5 P2</p> <p>Evaluate without using mathematical tables, the expression</p> $2\log_{10} 5 - \frac{1}{2} \log_{10} 16 + 2 \log_{10} 40$
11	<p>2005 Q 7 P2</p> <p>Find, without using Mathematical Tables the values of x which satisfy the equation $\text{Log}_2(x^2 - 9) = 3 \log_2 2 + 1$ (4 marks)</p>
12	<p>2006 Q 10 P1</p> <p>Without using mathematical tables or a calculator evaluate $6 \log_2 {}^3\sqrt{64} + 10 \log_3 {}^5\sqrt{243}$ (3 marks)</p>
13	<p>2008 Q 14 P1</p> <p>Given that $\log 4=0.6021$ and $\log 6=0.7782$, without using mathematical tables or a calculator, evaluate $\log 0.096$. (3mks)</p>
14	<p>2008 Q 12 P2</p> <p>Solve for y in the equation $\log_{10}(3y + 2) - 1 = \log_{10}(y - 4)$ (3mks)</p>
15	<p>2010 Q 15 P2</p> <p>Find the value of x give that $\text{Log}(15 - 5x) - 1 = \log(3x - 2)$ (3 marks)</p>
16	<p>2012 Q 1 P2</p> <p>Evaluate</p> $\frac{\log 4^5 - \log 5^4}{\log 4^{\frac{1}{5}} + \log 5^{\frac{1}{4}}}$ <p>giving the answer to 4 significant figures. (2 marks)</p>