

NAME \_\_\_\_\_ INDEX NUMBER \_\_\_\_\_

SCHOOL \_\_\_\_\_ DATE \_\_\_\_\_

# FORMULAE

KCSE 1989 – 2012 Form 3 Mathematics	Working Space
<p>1. <b>1989 Q3 P2</b>            Make <math>x</math> the subject of the formula (3 marks)</p> $N = \frac{P}{\sqrt{ax+bx}}$ $N = \frac{P}{\sqrt{(ax+bx)}}$	
<p>2. <b>1993 Q10 P1</b>            Make <math>n</math> the subject of the formula (3 marks)</p> $E = \sqrt{\frac{x(n-x)}{n-1}}$	
<p>3. <b>1994 Q14 P1</b>            Make <math>p</math> the subject of the formula (3 marks)</p> $A = \frac{-EP}{\sqrt{P^2+N}}$	

		Working Space
4.	<p><b>1995 Q 6 P1</b></p> <p>The volume <math>V\text{cm}^3</math> of an object is given by</p> $V = \frac{2}{3} \pi r^3 \left( \frac{1}{sc^2} - 2 \right)$ <p>Express <math>c</math> in term of <math>\pi</math>, <math>r</math>, <math>s</math> and <math>V</math> (3 marks)</p>	
5.	<p><b>1996 Q 14 P1</b></p> <p>Make <math>V</math> the subject of the formula</p> $T = \frac{1}{2} m (u^2 - v^2)$ <p>(3 marks)</p>	

		Working Space
6.	<b>1997 Q 13 P1</b> Given that $y = \frac{b - bx^2}{cx^2 - a}$ make x the subject	
719	<b>1998 8</b> Given that $\log y = \log (10x^n)$ make n the subject	

		Working Space
8.	<p><b>2000 Q 15 P2</b></p> <p>Make x the subject of the formula <math>p = \left( \frac{xy}{z+x} \right)^{1/2}</math> .</p>	
9.	<p><b>2001 Q 10 P1</b></p> <p>Make x the subject of the formula</p> $S = W \sqrt{a^2 - x^2}$	

		Working Space
10	<p><b>2002 Q 3 P1</b></p> <p>Make y the subject of the formula <math>p = \frac{xy}{x - y}</math></p>	
11	<p><b>2003 Q 3 P1</b></p> <p>Make c the subject of the formula:</p> $T = x \sqrt{c^2 + d^2} \quad (3 \text{ marks})$	
12		

	<p><b>2004 Q 9 P2</b></p> <p>Make b the subject      a = <math>\frac{bd}{\sqrt{b^2 - d}}</math></p>	<p>Working Space</p>
13	<p><b>2005 Q 10 P1</b></p> <p>Make P the subject of the formula</p> <p><math>P^2 = (P - q) (P-r)</math>      (3 marks)</p>	
14	<p><b>2006 Q 2 P2</b></p>	

	<p>Make <math>s</math> the subject of the formula (4 marks)</p> $\frac{\sqrt{p} - \sqrt{1-as^2}}{= r}$	<p>Working Space</p>
<p>15</p>	<p><b>2007 Q 2 P2</b></p> <p>Given that <math>y = \frac{2x-z}{x+3z}</math>, express <math>x</math> in terms of <math>y</math> and <math>z</math></p> <p>(3 marks)</p>	

16	<p><b>2008 Q 2 P2</b>          Make h the subject of the formula (3marks)</p> $q = \frac{1+rh}{1-hr}$	Working Space
17	<p><b>2010 Q 14 P2</b>          Make x the subject of the equation:</p> $3y = y + \frac{p}{q + \frac{1}{x}}$ <p>(3 marks)</p>	
18	<p><b>2011 Q 3 P2</b>          Make s the subject of the formula.</p> $W = 3\sqrt{\frac{s+t}{s}}$	



19	<b>2012 Q2 P2</b> Make n the subject of the equation. (3 marks) $\frac{r}{p} = \frac{m}{\sqrt{n-1}}$	