

## Question 9 – 2:

9(a)	$x^2 - x - 30 [= 0]$	<b>B3</b>	<b>M1</b> for $(2x+1)(x-1) - x^2 = 29$ oe <b>B1</b> for $(2x+1)(x-1) = 2x^2 - 2x + x - 1$ oe soi
	$(x-6)(x+5)$ oe	<b>M1</b>	or correct factors for <i>their</i> 3 term quadratic equation or for correct substitution into quadratic formula or correctly completing the square for <i>their</i> 3 term quadratic equation
	$x = 6$ cao	<b>B1</b>	
	12 or $2 \times$ <i>their</i> $x$ evaluated or $k = 2x$ stated	<b>B1 FT</b>	
9(b)(i)	$(y+1)^3 - y^3 = 5$ oe	<b>M1</b>	
	$(y+1)^3 = y^3 + 3y^2 + 3y + 1$ soi	<b>B2</b>	<b>B1</b> for $(y+1)^2 = y^2 + y + y + 1$ oe soi
	Completion to $3y^2 + 3y - 4 = 0$	<b>A1</b>	With no errors or omissions
9(b)(ii)	$\frac{-3 \pm \sqrt{3^2 - 4(3)(-4)}}{2 \times 3}$	<b>B2</b>	or <b>B1</b> for $\sqrt{3^2 - 4(3)(-4)}$ or for $\frac{-3 + \sqrt{\dots}}{2 \times 3}$ or $\frac{-3 - \sqrt{\dots}}{2 \times 3}$
	0.44	<b>B2</b>	<b>B1</b> for 0.758 or 0.7583...