Question	Answer	Marks	Partial Marks
10(b)	$ar^2 = 12$ soi	**B1**	
	$ar^5 = -96$ soi	**B1**	
	solve correct equations for a or r	**M1**	
	$r = -2$ and $a = 3$	**A1**	
	insert *their* a and r into S_{10} $\left(S_{10} = \frac{3\left(1-(-2)^{10}\right)}{1-(-2)} \right)$	**M1**	
	–1023	**A1**	
11	$\left(\sqrt{7}-2\right)\left(\sqrt{7}+2\right) = 3$ soi	**B1**	seen anywhere
	use quadratic formula to solve for x	**M1**	
	$x = \frac{4 \pm \sqrt{16 - 4\left(\sqrt{7}-2\right)\left(\sqrt{7}+2\right)}}{2\left(\sqrt{7}-2\right)}$	**A1**	
	$x = \frac{4 \pm 2}{2\left(\sqrt{7}-2\right)}$	**A1**	or $4 \pm \sqrt{4}$ in numerator
	rationalise one of *their* solutions e.g. $\frac{4+2}{2\left(\sqrt{7}-2\right)} \times \frac{\left(\sqrt{7}+2\right)}{\left(\sqrt{7}+2\right)}$	**B1**	full rationalisation statement must be shown
	$x = 2 + \sqrt{7}$ nfww	**A1**	
	$x = \frac{2}{3} + \frac{1}{3}\sqrt{7}$ nfww	**A1**	accept $\frac{2+\sqrt{7}}{3}$