Question Number	Scheme	Marks
5(a)	$\frac{(a+6)^2}{12}=27$	M1
	$a=\sqrt{27\times12}-6\Rightarrow 12^*$ or $a^2+12a-288=0\Rightarrow a=12^*$	A1*
		(2)
(b)(i)	$\frac{12-b}{18}=\frac{3}{5}$ or $\frac{b+6}{18}=\frac{2}{5}$	M1
	$b = 1.2$	A1
		(2)
(ii)	$\text{P}(-6<W<\text{"0.6"})=\frac{\text{"0.6"}+6}{18}$	M1
	$=\frac{11}{30}$ or $0.3666\ldots$	A1ft
		(2)
(c)	Let C be the point where the wood is cut and x is the distance AC	
	$\frac{x}{2}$ and $\left(\frac{160-x}{2}\right)$ | $L+W=80$ and $LW=975$	M1
	$\frac{x}{2}\times\left(\frac{160-x}{2}\right)=975\Rightarrow x=30$ or 130 | $L(80-L)=975\Rightarrow L=15$ or 65	M1
	$\text{P}(\text{"30"}<x<\text{"130"})=\frac{\text{"130"}-\text{"30"}}{160}\left[=\frac{5}{8}\right]$ oe | $\text{P}(\text{"15"}<x<\text{"65"})=\frac{\text{"65"}-\text{"15"}}{80}\left[=\frac{5}{8}\right]$ oe	dM1
	$=\frac{5}{8}$ oe	A1
		(4)

	Notes	**Total 10**
(a)	**M1**	for setting up the correct equation. Do not allow verification
	A1*	for an un-simplified expression for a leading to $a = 12$ or for a correct 3TQ = 0 leading to $a = 12$ Condone any letter for a
(b)(i)	**M1**	for setting up the correct equation
	A1	Cao oe
(ii)	**M1**	for a correct method. Do not ISW
	A1ft	ft their value for b, provided the answer is between 0 and 1
(c)	**M1**	For both expressions seen. Allow any letters e.g. $\frac{y}{2}$ for $\left(\frac{160-x}{2}\right)$ May be implied by a correct equation for the area
	M1	for a correct equation for area in terms of any letter. Condone an inequality
	dM1	dep on previous method mark awarded. For a fully correct method ft their x values provided add to 160 or 80 Do not ISW
	A1	Cao