

Question	Answer	Marks	Guidance
(a)	Mean = $5 \times 18.3$ and Variance = $5 \times 2.5^2$ [= N(91.5, 31.25)]	<b>B1</b>	SOI
	$\frac{95 - '91.5}{\sqrt{'31.25'}}$ [= 0.626]	<b>M1</b>	FT <i>their</i> mean and variance
	$1 - \Phi('0.626')$	<b>M1</b>	For finding area consistent with <i>their</i> values
	0.266 (3 sf)	<b>A1</b>	
		<b>4</b>	
(b)	$E(D) = 0$	<b>B1</b>	Or $E(D - 1) = -1$
	$\text{Var}(D) = 2.5^2 \times 2$ [= 12.5]	<b>B1</b>	
	$\frac{1-0}{\sqrt{'12.5'}}$ [= 0.283] or $\frac{-1-0}{\sqrt{'12.5'}}$ [= -0.283]	<b>M1</b>	FT <i>their</i> E and Var
	$\Phi('0.283') - (1 - \phi(0.283))$ [= 0.6115 - 0.3885]	<b>M1</b>	For finding area consistent with <i>their</i> values
	0.223 (3 sf)	<b>A1</b>	
		<b>5</b>	