Question Number	Scheme	Marks
5(a)(i)	$\mathrm{P}(D)=\dfrac{200}{320}=\dfrac{5}{8}$ (or exact equivalent e.g. 0.625)	B1 **(1)**
(ii)	$\mathrm{P}\left(D\cap X'\right)=\dfrac{1}{2}$ oe	B1 **(1)**
(iii)	$\mathrm{P}\left(D'\cup Z'\right)=\dfrac{320-88}{320};\quad =\dfrac{29}{40}=0.725$ o.e.	M1; A1 **(2)**
(b)	$\mathrm{P}(Z\mid D)=\dfrac{\frac{88}{320}}{"\frac{200}{320}"};\quad =\dfrac{88}{200}$ or $\dfrac{11}{25}$ or 0.44 oe	M1; A1 **(2)**
(c)	X and Y or X and Z or Y and Z (Allow X, Y etc)	B1 **(1)**
(d)	$\mathrm{P}(D)\times\mathrm{P}(X)=0.625\times0.2$ or $"\frac{5}{8}"\times\frac{64}{320}=0.125=\mathrm{P}(D\cap X)$ or $\mathrm{P}(D\mid X)=\dfrac{40}{64}=0.625=\mathrm{P}(D)$ or $\mathrm{P}(X\mid D)=\dfrac{40}{200}=\dfrac{1}{5}=\mathrm{P}(X)=\dfrac{24+40}{320}$ So yes they are independent	M1 A1 **(2)**
(e)(i)	A house that does not have a driveway but has exactly two cars	B1 **(1)**
(ii)	A house that has a driveway (with) fewer than two cars (oe)	B1 B1 **(2)**
		Total 12

	Notes
	If any part(s) of this question are missing please send to review
(a)(iii)	M1 for identifying the correct 7 values: 24, 40, 35, 37, 32, 44 and 20 or sum of 232 A1 for $\frac{29}{40}$ or exact equivalent e.g. 0.725
(b)	M1 for a ratio of probabilities with numerator of $\frac{88}{320}$ and denominator of their (a)(i) A1 for 0.44 or exact equivalent
(c)	B1 for at least one correct pair and no incorrect ones. Do not allow e.g. $\mathrm{P}(Y\cap Z)\left[=0\right]$ etc
(d)	M1 for a correct test with all required probs (labels and values) stated or implied - ft P(D) A1 for a correct conclusion – allow "yes they are" but must be events not probabilities e.g. a conclusion that P(D) and P(X) are independent is A0
(e)(ii)	1st B1 for a house that has a driveway 2nd B1 for fewer than two cars (Allow 0 or 1 but must not include both no car and 1 car) e.g. "has a driveway with 1 car and has a driveway with no car" is B1B0 **but** "has a driveway with 1 car or has a driveway with no car" is B1B1