12	(a)	eg $x + 0.15 + 0.5 + y + 0.13 + 0.03 = 1$ oe **or** $x + y = 1 - 0.15 - 0.5 - 0.13 - 0.03$ oe **or** $x + y + 0.81 = 1$ oe **or** $x + y = 1 - 0.81$ oe **or** $1 - 0.15 - 0.5 - 0.13 - 0.03 = 0.19$ oe **or** $1 - 0.81 = 0.19$ oe			2	M1	for setting up an equation in x and y using the sum of probabilities equals 1 **or** for showing that probabilities add up to 1
		Working required		Shown		A1	correctly rearranges to $x + y = 0.19$ (must be shown from a correct method) **or** a clear statement that $x + y = 0.19$
	(b)	$x + y = 0.19$ $3x - y = 0.09$ Adding ($x + 3x = 0.19 + 0.09$ or $4x = 0.28$) **or** $3x - (0.19 - x) = 0.09$ or $x + 3x - 0.09 = 0.19$	$3x + 3y = 0.57$ $3x - y = 0.09$ Subtracting ($3y - - y = 0.57 - 0.09$ or $4y = 0.48$) **or** $3(0.19 - y) - y = 0.09$ or $\left(\frac{0.09 + y}{3}\right) + y = 0.19$		3	M1	for a correct method to eliminate x or y: coefficients of x or y the same **and** correct operator to eliminate selected variable (condone any one arithmetic error in multiplication) **or** writing x or y in terms of the other variable and correctly substituting (condone missing brackets)
		"0.07" + $y = 0.19$ or $3 \times$ "0.07" $- y = 0.09$ **or** $y = 0.19 -$ "0.07" or $y = 3 \times$ "0.07" $- 0.09$	$3x + 3 \times$ "0.12" $= 0.57$ or $3x -$ "0.12" $= 0.09$ **or** $x = 0.19 -$ "0.12" or $x = \left(\frac{0.09 + "0.12"}{3}\right)$			M1	dep on first M1for a correct method to find other variable by substitution of found variable into one equation **or** for repeating the above method to find the second variable.
		Working required		$x = 0.07$ and $y = 0.12$		A1	oe dep on M1
						Total 5 marks