

Qu	Scheme	Marks	AO
5	Must end up with 3 of each colour or 4 of each colour	M1	3.1b
	<u>$n = 2$</u> requires 1 st red and 2 nd green <u>or</u> red from A and green from B	M1	2.2a
	$P(1^{\text{st}} \text{ red and } 2^{\text{nd}} \text{ green}) = \frac{4}{9} \times \frac{1}{10} = \frac{4}{90} \quad \text{or} \quad \frac{2}{45} \quad p = \frac{2}{\underline{\underline{45}}}$	A1	1.1b
	<u>$n = 5$</u> requires 1 st green and 2 nd yellow <u>or</u> green from A and yellow from B	M1	2.2a
	$P(1^{\text{st}} \text{ green and } 2^{\text{nd}} \text{ yellow}) = \frac{5}{12} \times \frac{3}{10} = \frac{15}{120} \quad \text{or} \quad \frac{1}{8} \quad p = \frac{1}{\underline{\underline{8}}}$	A1	1.1b
		(5)	
		(5 marks)	
	Notes		
NB	1 st M1 for an overall strategy realising there are 2 options. Award when evidence of both cases (3 of each colour or 4 of each colour) seen.		
	2 nd M1 for $n = 2$ <u>and</u> attempt at 1 st red and 2 nd green May be implied by e.g. $\frac{4}{9} \times \frac{1}{9}$		
	1 st A1 for $p = \frac{2}{\underline{\underline{45}}}$ or exact equivalent		
	3 rd M1 for $n = 5$ <u>and</u> attempt at 1 st green and 2 nd yellow May be implied by e.g. $\frac{5}{12} \times \frac{3}{9}$		
	2 nd A1 for $p = \frac{1}{\underline{\underline{8}}}$ or exact equivalent		
	If both correct values of p are found and then added (get $\frac{61}{360}$), deduct final A1 only (i.e. 4/5)		