20	Way 1 $p^2 = 1 - \frac{39}{64}$ oe **or** $p^2 = \frac{25}{64}$ oe **or** $(p =) \sqrt{1 - \frac{39}{64}} \left(= \sqrt{\frac{25}{64}} \right)$ oe **or** $(p =) \frac{5}{8}$ or 0.625 oe	Way 2 $q^2 + 2q(1-q) = \frac{39}{64}$ oe **or** $64q^2 - 128q + 39 (= 0)$ oe **or** $(q =) \frac{3}{8}$ or 0.375 oe		3	M1	Way 1 (p = probability of choosing green) award M1 for a **correct** equation in terms of p only **or** for a complete method to find p **or** for the correct value of p do **not** accept pp for p^2 unless evidenced by further correct work (eg square rooting) but allow $p.p$ or $p \times p$ Way 2 (q = probability of choosing red) award M1 for a **correct** equation in terms of q only **or** for the correct value of q may use any letter for their variable
	$"\frac{5}{8}" \times \left(1 - "\frac{5}{8}"\right)$ [× 2] oe $\left(= \frac{15}{64} \text{ [× 2]} \right)$ **or** $\frac{39}{64} - \left("\frac{3}{8}"\right)\left("\frac{3}{8}"\right)$ or $\frac{39}{64} - \left(1 - "\frac{5}{8}"\right)\left(1 - "\frac{5}{8}"\right)$ oe **or** $1 - \left("\frac{5}{8}"\right)\left("\frac{5}{8}"\right) - \left(1 - "\frac{5}{8}"\right)\left(1 - "\frac{5}{8}"\right)$ oe or $1 - \left("\frac{3}{8}"\right)\left("\frac{3}{8}"\right) - \left(1 - "\frac{3}{8}"\right)\left(1 - "\frac{3}{8}"\right)$ oe				M1	for a method to find the probability Nuno chooses exactly one red counter condone omission of × 2 if doing P(R) × P(G), but do not allow if this is multiplied by any other value or if combined with additional incorrect probabilities If incorrect, $"\frac{5}{8}"$ must come from $\sqrt{1 - \frac{39}{64}}$ oe If incorrect, $"\frac{3}{8}"$ must come from a valid method to solve a 3-term quadratic following M1 (factorising, quadratic formula or completing the square)
	Correct answer scores full marks (unless from obvious incorrect working).		$\frac{15}{32}$		A1	oe eg $\frac{30}{64}$ or 0.46(875) or 46(.875)% truncated or rounded to at least 2sf. ISW conversion to other forms (fraction, decimal or percentage) once correct probability has been seen
						Total 3 marks