Question	Answer	Mark	Mark scheme	Additional guidance
20	0.53	P1	for process to begin to use ratio to find probability of black or green pens, eg $0.27 \div 3\ (= 0.09)$	May work in decimals or equivalent fractions or percentages throughout
		P1	for process to use ratio to find probability of black or green pen, eg "0.09" × 5 (= 0.45) **or** "0.09" × 2 (= 0.18) **OR** for process to find combined probability of black, green and red pens, eg "0.09" × (5 + 2 + 3) (= 0.9)	
		P1	for process to find combined probability of a pink or orange pen, eg 1 – 0.27 – "0.45" – "0.18" (= 0.1) **or** 1 – "0.9" (= 0.1) **OR** ([pink or orange] =) 1 – 0.27 – [black] – [green] oe	[black] and [green] must be clearly identified as the probabilities for black and green and cannot be 0.27 where 0 < [black] < 1 and 0 < [green] < 1 **and** 0 < [pink or orange] < 1 May be implied by P(pink) + P(orange) = 0.1, may be seen in table
		P1	for process to find the probability of a pink pen, eg "0.1" ÷ (4 + 1) × 4 (= 0.08) **OR** (dep on prev P1) [pink or orange] ÷ (4 + 1) × 4	[pink or orange] must have come from a previous correct process where 0 < [pink or orange] < 1
		A1	for 0.53 oe	