

Question	Answer	Mark	Mark scheme	Additional guidance
14	No (supported)	<p>P1</p> <p>P1</p> <p>P1</p> <p>P1</p> <p>C1</p>	<p>for $P(OO) = \frac{5}{9} \times \frac{4}{8} (= \frac{20}{72})$ or $P(OE) = \frac{5}{9} \times \frac{4}{8} (= \frac{20}{72})$</p> <p>or $P(EO) = \frac{4}{9} \times \frac{5}{8} (= \frac{20}{72})$ or $P(EE) = \frac{4}{9} \times \frac{3}{8} (= \frac{12}{72})$</p> <p>for $P(OO) = \frac{5}{9} \times \frac{4}{8} (= \frac{20}{72})$ and $P(EE) = \frac{4}{9} \times \frac{3}{8} (= \frac{12}{72})$</p> <p>OR for $P(OE) = \frac{5}{9} \times \frac{4}{8} (= \frac{20}{72})$ and $P(EO) = \frac{4}{9} \times \frac{5}{8} (= \frac{20}{72})$</p> <p>and $P(EE) = \frac{4}{9} \times \frac{3}{8} (= \frac{12}{72})$</p> <p>for a process to find probability of sum being even, eg $P(OO) + P(EE) = \frac{5}{9} \times \frac{4}{8} + \frac{4}{9} \times \frac{3}{8} (= \frac{32}{72})$</p> <p>for a process to work with probability of product being even, eg $P(EO) + P(OE) + P(EE) = \frac{4}{9} \times \frac{5}{8} + \frac{5}{9} \times \frac{4}{8} + \frac{4}{9} \times \frac{3}{8} (= \frac{52}{72})$</p> <p>or $1 - P(OO) = 1 - \frac{5}{9} \times \frac{4}{8} (= \frac{52}{72})$</p> <p>for No supported by correct probabilities, eg $\frac{32}{72}$ and $\frac{52}{72}$</p> <p>SC B2 for $\frac{41}{81}$ and $\frac{56}{81}$ and No</p> <p>SC B1 for $\frac{41}{81}$ and $\frac{56}{81}$ with no decision or incorrect decision</p>	<p>Accept equivalent probabilities throughout</p> <p>Sample space diagram or listing: Award P3 for $P(\text{sum even}) = \frac{32}{72}$ or $P(\text{product even}) = \frac{52}{72}$, P4 for both</p>