

H.W.1

S.W.E

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$$① 250C_{22} = 31125$$

$$② 5C_2 = 10$$

$$③ 2^3 = 8$$

$$④ 30C_3 = 4060$$

$$⑤ 6C_3 = 20$$

$$⑥ E = \{(1,6), (2,5), (3,4), (4,3), (5,2), (6,1)\}$$

$$|E| = 6$$

$$|S| = 36$$

$$P(E) = \frac{6}{36} = \frac{1}{6}$$

$$P(E') = 1 - \left(\frac{1}{6}\right)^3 = \frac{125}{216}$$

$$⑦ 6C_3 - 6C_2 = 5$$

$$⑧ \binom{2}{1} \binom{2}{1} \binom{2}{1} \binom{2}{1} \binom{2}{1} \binom{15}{6} = 160160$$

$$⑨ \binom{2}{2} \binom{2}{2} \binom{2}{2} \binom{2}{2} \binom{2}{2} \binom{15}{6} = 5005$$