

Homework 1 S.W

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$$1) {}^2P_5 \circ {}^2C_2 = 31, 125$$

$$2) {}^5C_3 = \frac{5!}{3!(5-3)!} = 10$$

$$3) 2 \times 2 \times 2 = 2^3 = 8$$

$$4) {}^{30}P_3 = \frac{30!}{(30-3)!} = 24 \cdot 360$$

$$5) {}^6C_3 = \frac{6!}{3!(6-3)!} = 20$$

$$6) \left(\frac{5}{8}\right)^3 = \frac{125}{216} = 0,5787$$

$$1 - \frac{125}{216} = \frac{91}{216} = 0,4219$$

$$7) ({}^4C_2) \times ({}^2C_1) + ({}^4C_3) = 16$$

$$8) \textcircled{a} \cdot 2^5 = 32 / 32 \times 2^9 = 32 \times \frac{20!}{(9! \times 11!)}$$

$$= 5,374,720$$

$$9) {}^2C_2 = 1$$

$$2 \times {}^{19}C_4 \times {}^{15}C_2 = 2 \times 38,760 \times 105 = 4,069,880$$