

Homework 1

$$1- 250c_2 = 31,125$$

$$2- 5c_3 = \frac{5!}{3!(5-3)!} = 10$$

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

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

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

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

$$1 - \frac{125}{216} = \frac{91}{216} = 0,42129$$

$$7- (4c_2) * (2c_1) + (4c_3) = 16$$

$$8- a- 2^5 = 32, \quad 32 * 20c_9 = 32 * \frac{20!}{(9! * 11!)}$$

$$= 5,374,720$$

b)

$$2c_2 = 1,$$

$$1 * 19c_4 * 15c_2 = 1 * 38,760 * 105 =$$

$$4,069,880$$