

Taller 58

$$1) a) C(20, 7) = \frac{20!}{13! 7!} = \frac{243.290.200.817.666.000}{6.227.0208.000 \cdot 5040}$$

$$= \frac{243.290.200.817.666.000}{31.384.184.832.000} = 7752 \text{ formas diferentes para realizar esta selección}$$

$$b) C(5, 3) = \frac{5!}{2! 3!} = 10$$

$$C(15, 4) = \frac{15!}{(11! 4!)} = \frac{1.307.674.368.000}{399.16800 \times 24} = \frac{1.307.674.368.000}{958.003.200}$$

$$= 1,365 \quad \Bigg| \quad 10 \times 1365 = 13650 \text{ formas para seleccionar}$$

$$2) a) C(52, 5) = \frac{52!}{(47! 5!)} = 2.598.960 \text{ Existen } 2.598.960 \text{ manos de } \text{poker} \text{ en una baraja de } 52$$

$$b) C(13, 5) = \frac{13!}{8! 5!} = 1287 \times 45148$$

$$c) C(4, 3) = \frac{4!}{3!} = 4 \times 13 = 52$$

$$C(4, 2) = \frac{4!}{2! 2!} = 6 \times 12 = 72 \quad 52 \times 72 = 3744$$