

$$\frac{14!}{5!4!3!2!} = \frac{14 \times 13 \times 12 \times 11 \times 10 \times 9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2}{5 \times 4 \times 3 \times 2 \times 4 \times 3 \times 2 \times 3 \times 2 \times 2} =$$

$$\frac{7 \times 2 \times 13 \times 6 \times 2 \times 11 \times 5 \times 2 \times 3 \times 3 \times 2 \times 4 \times 7 \times 3 \times 2}{4 \times 3 \times 2 \times 3 \times 2 \times 2} = 7 \times 2 \times 13 \times 6 \times 2 \times 11 \times 5 \times 3 \times 7$$

$$= 14 \times 13 \times 12 \times 11 \times 15 \times 7 = 182 \times 132 \times 105 = 24024 \times 105$$

$$= 2522520$$

14 x 13	12 x 11	15 x 7	182 x 132	24024 x 105
42	12	105	364	120120
140	120		5460	2402400
182	132		18200	
			24024	2522520