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Permutações

1-

$$P = 8! \cdot 2 \cdot 7!$$

$$P = 40.320 - 10.080 \rightarrow 30.240$$

$$R. 30.240$$

2-

$$P = 1.5.5! \rightarrow 5.120$$

$$P = 600$$

$$R. D$$

3-

$$P = 5!$$

$$P = 120$$

$$R. A$$

4-

$$\underline{1} \quad \underline{7} \quad \underline{6} \quad \underline{5} \quad \underline{4} \quad \underline{3} \quad \underline{2} \quad \underline{1} \quad \underline{1}$$

$$P = 7!$$

$$P = 5040$$

$$R. C$$

5-

$$\underline{2} \quad \underline{1} \quad \underline{5} \quad \underline{4} \quad \underline{3} \quad \underline{2} \quad \underline{1}$$

$$P = 2!5! = 2 \cdot 120 \rightarrow 240$$

$$P = 240$$

$$R. B$$

6-

$$\underline{1} \quad \underline{1} \quad \underline{4} \quad \underline{3} \quad \underline{2} = 4!$$

$$P = 4! \cdot 2 \rightarrow 24 \cdot 2 \rightarrow 48$$

$$P = 48$$

$$R. B$$

7-

$$\underline{4} \quad \underline{5} \quad \underline{4} \quad \underline{3} \quad \underline{2} \quad \underline{1} \quad \underline{3} = 1440$$

$$1440/2 \rightarrow 720$$

$$R. B$$

$$8- P_{TOT} = 5!$$

$$P_{TOT-H} = 4!$$

$$P_H = 2!$$

$$P = 5! - 4! \cdot 2!$$

$$P = 120 - 48$$

$$P = 72$$

P_{TOT} = permutação total da fila

P_{TOT-H} = permutação total menos um homem

P_H = permutação dos homens entre si

R. B

$$9- P_6^{(3,3)} = \frac{6!}{3!3!} = 20$$

$$3 \cdot 20 = 60$$

R. E