MH1812 Tutorial
Chapter 5: Combinatorics

Q1: A set menu proposes 2 choices of starters, 3 choices of main dishes, and 2 choices of desserts. How many possible set menus are available?

Q2:
- In a race with 30 runners where 8 trophies will be given to the top 8 runners (the trophies are distinct, there is a specific trophy for each place),in how many ways can this be done?
- In how many ways can you solve the above problem if a certain person, say Jackson, must be one of the top 3 winners?

Q3: In how many ways can you pair up 8 boys and 8 girls?

Q4: How many ternary strings of length 4 have zero ones?

Q5: How many permutations are there of the word "repetition"?