



Goals

Revise for your test.

Test: Friday 26th March at 8:45 am – 10:45 am in the Gym.

Theoretical Components

Knowledge Checklist:

Algebra:

- Expanding
- Simplifying
- Collecting like terms
- Rearranging
- Algebraic fractions

Probability:

- Understand the addition and multiplication principles for counting
- Compute number of possible arrangements using permutation
- Develop an understanding of factorial notation and apply it to calculating permutations
- Use ${}^n P_r$ to count number of possible arrangements
- Apply basic probability rules
- Use ${}^n P_r$ to count number of possible arrangements (permutations)
- Compute number of ways of arranging n objects which include p identical objects of one type, q identical objects of another type, r identical objects of yet another type...
- Compute number of arrangements when n objects divided into m groups
- Compute number of arrangements when distinguishable objects are arranged in a circle
- Use combinations to count selections of objects where order is not important; use the ${}^n C_r$ notations to represent selections where order is not important; use CAS to compute ${}^n C_r$ for a given n and a given r

Knowledge Checklist:

Probability:

- Investigate patterns in Pascal's triangle and the relationship to combinations, establish counting principles and use them to solve simple problems involving numerical values for n and r
- Determine the probability of simple and compound events
- Use tree diagrams, Venn diagrams and Karnaugh maps to determine the sample space and probability of compound event
- Use addition principle to compute probabilities of mutually exclusive (and non-mutually exclusive or inclusive) events
- Understand and use the definition of conditional probability
- Use the relative frequency approach to assigning probability to find the conditional probability of an event from a two-way table
- Use the multiplication rule to find the probability of the intersection of two events
- Use the multiplication rule to find the probability of the intersection of more than two events
- Determine if two events are independent

Linear Modelling:

- Linear functions and modelling
- Describing functions and relations
- Learn to use your ClassPad calculator

QFO

Quiz/Forum/Other

Complete a summary sheet in preparation for the **test in Week 8**. (Two-sided hand-written A4 page) This will be collected at the end of the test. ☺