**MAWA FORMULA SHEET FOR MATHEMATICS SPECIALIST (Unit 1)**

**Combinatorics**

**Combinations** 

**Inclusion – exclusion principle** 



**Permutations** 

**Vectors in the plane**

**Magnitude of a vector **

**Unit vector **

**Scalar product **

**Vector projection** (of **a** on **b**) ****

**Trigonometric functions formulae from Mathematical Methods**

**Angle sum and difference identites**

**Area of a sector**

**Area of a segment**

**Length of an arc**

**Length of a chord**

**Sine rule**

**Cosine rule**

**Cot(x)=1/(tanx)**

**Tan(x)=sin(x)/cos(x)**