

Sets and Probability

Small Steps

- Identify and represent sets
- Interpret and create Venn diagrams
- Understand and use the intersection of sets
- Understand and use the union of sets
- Understand and use the complement of a set** H
- Know and use the vocabulary of probability
- Generate sample spaces for single events
- Calculate the probability of a single event
- Know that the sum of probabilities of all possible outcomes is 1

H denotes higher strand and not necessarily content for Higher Tier GCSE

Developing Number Sense

Small Steps

- ▶ Know and use mental addition and subtraction strategies for integers
- ▶ Know and use mental multiplication and division strategies for integers
- ▶ Know and use mental arithmetic strategies for decimals
- ▶ Know and use mental arithmetic strategies for fractions
- ▶ Use factors to simplify calculations
- ▶ Use estimation as a method for checking mental calculations
- ▶ Use known number facts to derive other facts
- ▶ Use known algebraic facts to derive other facts
- ▶ Know when to use a mental strategy, formal written method or a calculator

Prime Numbers and Proof

Small Steps

- Find and use multiples
- Identify factors of numbers and expressions
- Recognise and identify prime numbers
- Recognise square and triangular numbers
- Find common factors of a set of numbers including the HCF
- Find common multiples of a set of numbers including the LCM
- Write a number as a product of its prime factors
- Use a Venn diagram to calculate the HCF and LCM H
- Make and test conjectures
- Use counterexamples to disprove a conjecture

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