Curriculum Links
TI-15 Explorer™: Prime Factors

C

Year 7 Number

Statement of Learning Opportunities

- Identify and use factors of numbers including prime factors to assist mental computation

Key Ideas

- A factor of number is a number that will divide evenly into the number
- A prime number has only two factors (itself and one)
- A composite number has more than two factors
- A square number has an odd number of factors
- A prime factor is a factor that cannot be further factorised (i.e. it is a prime number)
- Index notation can be used as a short-hand way of showing numbers multiplied by themselves
- Prime factorisation can be shown in index form
- The TI-15 can be used to help find the prime factors of a number

Key Vocabulary

Prime, composite, factor, index

Lesson Overview

i) Revise meaning of prime, composite numbers and factors of numbers
ii) Finding factors of given number
iii) How to find prime factorisation for a given number by hand and by using the TI-15
iv) Determining how many factors a number has
v) Challenge questions
vi) Assessment

Equipment

TI-15 Explorer™, copies of worksheets and assessment

Sequencing

• identify factors and multiples of some two- and three- digit numbers • investigate prime numbers	• identify and use factors of numbers including prime factors to assist mental computation and to recognise number properties	• use prime numbers and factor trees to express any natural number as a product of powers of primes

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Indicators of Success

- Students will know the difference between prime and composite numbers
- Students will be able to find all factors of a given number
- Students will be able to find the prime factorisation for a given number
- Students will be able to recall the prime numbers less than 30
- Students will be able to use division to decide if a given number is a prime