Remote Curriculum
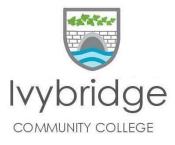
Year 10 Higher Maths

How it Works:

1. Find the correct week commencing row.
2. Find today's day - There are 2 different lessons in each day – you won't run out of work.
3. Choose a lesson – hold ctrl and click the chosen link.

   If you don't recognise the work, it appears too difficult or the link doesn't load;

   Try another task – look at the previous/next lesson or look at other days.

4. Some lessons have links to PowerPoints and other resources beneath the video and/or Starter Quiz
5. Complete any starter quizzes.
   a. Write your answer down
   b. Mark your answers and write down any corrections
6. Watch the videos and take notes.
7. Pause if/when instructed to do so to answer questions or respond.
8. Complete and go onto the next one.

Week Commencing	Week	Lesson	Title	Lesson 1 Hold ctrl and click	Lesson 2 Hold ctrl and click
9/09/24	B	Monday	*Powers, roots and surds*	Square and cube numbers	Square roots and cube roots
		Tuesday		Square roots and cube roots	Higher powers
		Wednesday		Higher powers	Higher roots
		Thursday		Higher roots	Multiply powers
		Friday		Multiply powers	Divide powers
16/09/24	A	Monday		Divide powers	Powers of powers
		Tuesday		Powers of powers	Manipulating powers
		Wednesday		Manipulating powers	Accuracy of final answers
		Thursday		Accuracy of final answers	Identifying square factors to support simplifying surds
		Friday		Identifying square factors to support simplifying surds	Simplifying surds
23/09/24	B	Monday		Simplifying surds	Addition with surds
		Tuesday		Addition with surds	Multiplication of surds
		Wednesday		Multiplication of surds	Applying the underlying structure of multiplication and division of surds

		Thursday		Applying the underlying structure of multiplication and division of surds	The distributive law with surds
		Friday		The distributive law with surds	The distributive law with two or more binomials
30/09/24	A	Monday		The distributive law with two or more binomials	Rationalising a single term denominator
		Tuesday		Rationalising a single term denominator	Rationalising a two term denominator
		Wednesday		Checking and securing understanding of roots and integer indices	The laws of indices - multiplication
		Thursday		The laws of indices - multiplication	The laws of indices - division
		Friday		The laws of indices - division	The laws of indices - raising a power to a power
7/10/24	B	Monday		The laws of indices - raising a power to a power	The laws of indices - negative and zero exponents
		Tuesday	Indices and Standard form	The laws of indices - negative and zero exponents	Problem solving with the laws of indices
		Wednesday		Problem solving with the laws of indices	Checking and securing understanding of writing large numbers in standard form
		Thursday		Checking and securing understanding of writing large numbers in standard form	Checking and securing understanding of writing small numbers in standard form
		Friday		Checking and securing understanding of writing small numbers in standard form	Adding numbers in standard form
14/10/24	A	Monday		Adding numbers in standard form	Subtracting numbers in standard form
		Tuesday		Subtracting numbers in standard form	Multiplying numbers in standard form
		Wednesday		Multiplying numbers in standard form	Dividing numbers in standard form
		Thursday		Dividing numbers in standard form	Problem solving with standard form calculations
		Friday		Problem solving with standard form calculations	Problem solving with the laws of indices
21/10/24	B	Monday	Sequences	Write the nth term of a linear sequence	Find terms of a linear sequence
		Tuesday		Find terms of a linear sequence	Triangular and Fibonacci style sequences
		Wednesday		Triangular and Fibonacci style sequences	Simple quadratic and cubic sequences
		Thursday		Simple quadratic and cubic sequences	Find the nth term of a quadratic sequence
		Friday		Find the nth term of a quadratic sequence	Solve simple quadratic inequalities
4/11/24	A	Monday	Quadratics and quadratic graphs	Expand 2 brackets and simplify expressions (Part 1)	Expand 2 brackets and simplify expressions (Part 2)
		Tuesday		Expand 2 brackets and simplify expressions (Part 2)	Expand and simplify double brackets
		Wednesday		Expand and simplify double brackets	Expand and Simplify Double Brackets (Coefficient of x Greater than 1)

Date	Week	Day	Topic	Lesson 1	Lesson 2
		Thursday		Expand and Simplify Double Brackets (Coefficient of x Greater than 1)	Factorise a quadratic
		Friday		Factorise a quadratic	Factorise a quadratic (difference of two squares)
11/11/24	B	Monday		Factorise a quadratic (difference of two squares)	Plot simple quadratic equations
		Tuesday		Plot simple quadratic equations	Plot other quadratic equations
		Wednesday		Plot other quadratic equations	Solving Quadratic Equations Graphically
		Thursday		Solving Quadratic Equations Graphically	Identify and interpret roots, intercepts and turning points of quadratic graphs
		Friday		Identify and interpret roots, intercepts and turning points of quadratic graphs	Expand 2 brackets and simplify expressions (Part 1)
18/11/24	A	Monday		Expand 2 brackets and simplify expressions (Part 1)	Expand 2 brackets and simplify expressions (Part 2)
		Tuesday		Expand 2 brackets and simplify expressions (Part 2)	Expand and simplify double brackets
		Wednesday		Expand and simplify double brackets	Expand and Simplify Double Brackets (Coefficient of x Greater than 1)
		Thursday		Expand and Simplify Double Brackets (Coefficient of x Greater than 1)	Plot simple quadratic equations
		Friday		Plot simple quadratic equations	Plot other quadratic equations
25/11/24	B	Monday		Plot other quadratic equations	Factorise a quadratic
		Tuesday	Algebra and Algebraic Fractions	Solving equations with brackets	Solving equations with unknown on both sides
		Wednesday		Solving equations with unknown on both sides	Substitute a positive term into a formula
		Thursday		Substitute a positive term into a formula	Substitute a negative term into a formula
		Friday		Substitute a negative term into a formula	Checking and securing understanding of simplifying
2/12/24	A	Monday		Checking and securing understanding of simplifying	Checking and securing understanding of substitution
		Tuesday		Checking and securing understanding of substitution	Add two algebraic fractions with integer denominators
		Wednesday		Add two algebraic fractions with integer denominators	Subtract two algebraic fractions with an integer denominator
		Thursday		Subtract two algebraic fractions with an integer denominator	Solving equations involving adding two fractions

		Friday		Solving equations involving adding two fractions	Solving equations involving subtracting two fractions
9/12/24	B	Monday		Solving equations involving subtracting two fractions	Add two algebraic fractions with integer denominators
		Tuesday	Simultaneous equations	Checking and securing understanding of interpreting graphs	Forming simultaneous equations
		Wednesday		Forming simultaneous equations	Combining equations
		Thursday		Combining equations	Solving algebraic simultaneous equations by elimination
		Friday		Solving algebraic simultaneous equations by elimination	Solving more complex simultaneous equations by elimination
16/12/24	B	Monday		Solving more complex simultaneous equations by elimination	Solving simultaneous linear equations by substitution
		Tuesday		Solving simultaneous linear equations by substitution	Solving simultaneous linear equations graphically
		Wednesday		Solving simultaneous linear equations graphically	Solving simultaneous equations via any method
		Thursday		Solving simultaneous equations via any method	Problem solving with simultaneous equations
		Friday		Problem solving with simultaneous equations	Combining equations

Lesson 3
Hold ctrl and click
0613 Factors and Multiples
0686 Lowest Common Multiple
0687 Highest Common Factor
0685 Highest Common Factor
0748 Highest Common Factors and Lowest Common Multiples – Listing Method 2
0617 Highest Common Factors and Lowest Common Multiples – Venn Diagram
0608 Triangular and Prime Numbers
0609 Triangular and Prime Numbers
0879 Square and Cube Roots and Basic Powers
0611 Powers and Roots
0883 Use of Index Notation for Powers of 10 in Calculations
0884 Laws of Indices and Re-writing with the same Base
0991 Raising to another Exponent and Fractional Indices
0885 Using Negative and Fractional Indices

0747 Factors, Multiples and Primes
0167 Prime Factor Decomposition
0616 Prime Factorisation
0827 Primes, Product of Primes: Venn Diagram Method
0749 Highest Common Factors and Lowest Common Multiples – Prime Factor Decomposition
0588 Addition and Subtraction Problems
0021 Multiplying Integers
0025 Dividing Integers
0145 Add and Subtract Decimals
0679 Adding and Subtracting Decimals
0027 Solving Problems by Multiplying and Dividing Integers and Decimals
0159 Multiply and Divide Positive and Negative Numbers
0031 Using Negative Numbers in Context
0159 Multiply and Divide Using Positive and Negative Numbers
0014 Ordering Negative Numbers
0603 Ordering Negative Numbers
0683 Adding and Subtracting Negative Numbers 2
0605 Multiply and Divide Negative Numbers
0612 Bidmas
0681 Bidmas

0041 Factors and Multiples	0245 Multiples and Lowest Common Multiples

L0043 Lowest Common Multiple	0114 Lowest Common Multiple
0042 highest Common Factors	0113 Highest Common Factors
Highest Common Factors	0166 Highest Common Factor and Lowest Common Multiple
Factor Polygons	0615 Highest Common Factors and Lowest Common Multiples – Listing Method 1
Common Multiples	0826 Factors, Highest Common Factors, Multiples and Lowest Common Multiples
Square Numbers	0110 Square and Cube Numbers
0034 Triangular, Square and Cube Numbers	Square and Cube Numbers
Square Roots and Cube Roots	0038 Squares and Square Roots. Cubes and Cube Roots
0037 Powers and Roots	
Mayan Numbers	0101 Multiplication and Division by Powers of 10
Base 10 and Base 5	Expressing Powers of Different Bases
Operations in Bases	Exposing Factors
Indices	0047 Using Index Notation – Prime Decomposition
	0987 Laws of Indices for Multiplication
Index Notation	0988 Laws of Indices for Division
Laws of Indices	Negative Indices
	0989 Zero and Negative Indices
	Indices and Power of Zero
Index Laws	Fractional Indices
0033 Recognise Odd and Even Two-Digit Prime Numbers	0112 Factors and Prime Factors
0165 Prime Numbers	0046 Prime Factor Decomposition
Prime Building Blocks	0167 Prime Factor Decomposition

0108 Adding and Subtracting Negative Numbers	0146 Multiply Integers and Decimals
0157 Ordering Negative Numbers	0158 Addition and Subtraction Problems with Negative Numbers
0026 Ordering Positive and Negative Integers	0029 Addition and Subtraction with Positive and Negative Integers
0022 Dividing Integers	0147 Divide Integers and Decimals
0013 Ordering Positive Integers	0107 Ordering Negative Numbers
Representing Integers	0011 Place Value for Integers and Decimals
0098 Subtracting Integers and Decimals	0604 Add and Subtract Negative Numbers 1
0030 Multiply and Divide Positive and Negative Integers	0109 Multiplying and Dividing Negative numbers
0039 Order of Operations (Bidmas)	0103 Bidmas
0151 Four Operations and Money Problems 0149 Order of Operations	0150 Apply the Four Operations
Representing Integers	0011 Place Value for Integers and Decimals
0098 Subtracting Integers and Decimals	0604 Add and Subtract Negative Numbers 1
0030 Multiply and Divide Positive and Negative Integers	0109 Multiplying and Dividing Negative numbers
0039 Order of Operations (Bidmas)	0103 Bidmas
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