Pure Maths Year 2 Revision Checklist

Topic	Unit	Sub-topic	☹	😕	☺	Revised
1. Algebraic methods	1.1	Proof by contradiction				
	1.2	Algebraic fractions				
	1.3	Partial fractions				
	1.4	Repeated factors				
	1.5	Algebraic division				
2. Functions and graphs	2.1	The modulus function				
	2.2	Functions and mappings				
	2.3	Composite functions				
	2.4	Inverse functions				
	2.5	$y = \lvert f(x) \rvert$ and $y = f(\lvert x \rvert)$				
	2.6	Combining transformations				
	2.7	Solving modulus problems				
3. Sequences and series	3.1	Arithmetic sequences				
	3.2	Arithmetic series				
	3.3	Geometric sequences				
	3.4	Geometric series				
	3.5	Sum to infinity				
	3.6	Sigma notation				
	3.7	Recurrence relations				
	3.8	Modelling with series				
4. Binomial expansion	4.1	Expanding $(1 + x)^n$				
	4.2	Expanding $(a + bx)^n$				
	4.3	Using partial fractions				
5. Radians	5.1	Radian measure				
	5.2	Arc length				
	5.3	Areas of sectors and segments				
	5.4	Solving trigonometric equations				
	5.5	Small angle approximations				
6. Trigonometric functions	6.1	Secant, cosecant and cotangent				
	6.2	Graphs of $\sec x$, $\operatorname{cosec} x$ and $\cot x$				
	6.3	Using $\sec x$, $\operatorname{cosec} x$ and $\cot x$				
	6.4	Trigonometric identities				
	6.5	Inverse trigonometric functions				
7. Trigonometry and modelling	7.1	Addition formulae				
	7.2	Using the angle addition formulae				
	7.3	Double-angle formulae				
	7.4	Solving trigonometric equations				
	7.5	Simplifying $a \cos x \pm b \sin x$				
	7.6	Proving trigonometric identities				
	7.7	Modelling with trigonometric functions				
8. Parametric equations	8.1	Parametric equations				
	8.2	Using trigonometric identities				
	8.3	Curve sketching				
	8.4	Points of intersection				
	8.5	Modelling with parametric equations				

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9. Differentiation	9.1	Differentiating $\sin x$ and $\cos x$				
	9.2	Differentiating exponentials and logarithms				
	9.3	The chain rule				
	9.4	The product rule				
	9.5	The quotient rule				
	9.6	Differentiating trigonometric functions				
	9.7	Parametric differentiation				
	9.8	Implicit differentiation				
	9.9	Using second derivatives				
	9.10	Rates of change				
10. Numerical methods	10.1	Locating roots				
	10.2	Iteration				
	10.3	The Newton-Raphson method				
	10.4	Applications to modelling				
11. Integration	11.1.	Integrating standard functions				
	11.2	Integrating f$(ax + b)$				
	11.3	Using trigonometric identities				
	11.4	Reverse chain rule				
	11.5	Integration by substitution				
	11.6	Integration by parts				
	11.7	Partial fractions				
	11.8	Finding areas				
	11.9	The trapezium rule				
	11.10	Solving differential equations				
	11.11	Modelling with differential equations				
12. Vectors	12.1	3D coordinates				
	12.2	Vectors in 3D				
	12.3	Solving geometric problems				
	12.4	Application to mechanics				