## Maths – Booster Sessions Grade 5 to 9 Index

## Tuesday 28th March New Higher Content

## Session to include a selection from the list below. Resources for all will be available.

- Expand the products of more than two binomials
- Interpret the reverse process as the 'inverse function'; interpret the succession of

two functions as a 'composite function' (using formal function notation)

- Deduce turning points by completing the square
- Calculate or estimate gradients of graphs and areas under graphs, and interpret

results in real-life cases (not including calculus)

- Simple geometric progressions including surds, and other sequences
- Deduce expressions to calculate the nth term of quadratic sequences
- Calculate and interpret conditional probabilities through Venn diagrams

		Qu	Grade	Description
4 <sup>th</sup> April	#1a and #1b	1	5/6	Compound interest
		2	5/6	Solve quadratic equation by factorising
<b>₹</b>		3	5/6	Indices
<b>4</b> <sup>‡</sup>		4	6	Linear simultaneous equations
a\		5	6	Trigonometry – sine ratio
psa		6	7/8	Surds
Tuesday	Mat	7	7/8	Stratified sample
	_	8	7/8	Sine rule – find a side
		9	8/9	Simultaneous equations – quadratic and linear

		Qu	Grade	Description
<b>=</b>	#2b	1	6	Trigonometry – sine ratio
d₁		2	7/8	Sine rule – find angle
<u>ا</u> با	and	3	7/8	Quadratic formula
25th Apri	#2a	4	6	Linear simultaneous equations
<u>&gt;</u>		5	7/8	Surds
Tuesday		6	7/8	Proportional change
lě	Mat	7	7/8	Sketch y = sin x
F	_	8	7/8	Solve fractional linear equation
		9	7/8	Volume of a sphere

		Qu	Grade	Description
	t #3a and #3b	1	5/6	Pythagoras theorem – find hypotenuse
Мау		2	6	Trigonometry – tangent ratio
2		3	7/8	Cosine rule – find side
<b>2</b> nd		4	6	Compound interest
ау		5	8/9	Simultaneous equations – quadratic and linear
Fuesday		6	8/9	Simultaneous equations – quadratic and linear
<u>ש</u>	Mat	7	6	Complete the square
-	_	8	6	Sketch $y = x^3$
		9	7/8	Sketch y = cos x

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		Qu	Grade	Description
	Mat #4a and #4b	1	5/6	Pythagoras theorem – find adjacent
lау		2	6	Trigonometry – tangent ratio
9 <sup>th</sup> May		3	7/8	Cosine rule – find angle
		4	7/8	Equation of a straight line through two points
<u> a</u>		5	6	Volume of cylinder – find the height
Tuesday		6	6	Difference of two squares
<u>ה</u>		7	6	Function table
		8	6	Sketch the curve y = 1/x
		9	7/8	Sketch the curve y = tan x

		Qu	Grade	Description
>	#2p	1	6	Factorise quadratic expression
Мау		2	6	Trigonometry – sine ratio
를 를		3	6	Area of non right angled triangle
16 <sup>th</sup>	t #5a and	4	6	Linear simultaneous equations
		5	8/9	Simultaneous equations – quadratic and linear
<b>Fuesday</b>		6	7/8	Surds
ne	Mat	7	6	Proportional change
-	_	8	7/8	Volume of cone – answer as a multiple of $\pi$
		9	7/8	Volume of sphere – answer as a multiple of $\pi$