YEAR 10	Spring 2021				Foundation	
DATES	UNIT / LESSON	PRIOR KNOWLEDGE	GRADE FROM …	GRADE TO …	OBJECTIVES	Corbett
	11 Ratio and proportion	Know the four operations of number. Have a basic understanding of fractions as being 'parts of a whole'. Find the scale factor of an enlargement. Draw a line graph from a table of values.	2	5		
04/01/2021	11.1 Writing ratios	Multiply and divide whole numbers. Interpret bar charts.	2	3	Use ratio notation. Write a ratio in its simplest form. Solve problems using ratios.	269
	11.2 Using ratios 1	Know and use metric conversions. Find the HCF of a pair of numbers.	2	3	Solve simple problems using ratios.	269
11/01/2021	11.3 Ratios and measures	Convert units of weight, length, capacity and time. Use index notation. Work out areas of recangles and volumes of cubes.	2	4	Use ratios to convert between units. Write and use ratios for shapes and their enlargements.	269
18/01/2021	11.4 Using ratios 2	Write ratios using correct notation. Round to a specified degree of accuracy. Write a ratio in its simplest form.	3	5	Divide a quantity into 2 parts in a given ratio. Divide a quantity into 3 parts in a given ratio. Solve word problems using ratios.	270 271
25/01/2021	11.5 Comparing using ratios	Interpret ratios. Write a ratio in its simplest form.	3	4	Use ratios involving decimals. Compare ratios. Solve ratio and proportion problems.	271
01/02/2021	11.6 Using proportion	Understand and use place value to order decimals. Write a ratio in the form 1 : n.	3	3	Use the unitary method to solve proportion problems. Solve proportion problems in words. Work out which product is better value for money.	255a/256 256
08/02/2021	11.7 Proportion and graphs	Understand and use y = mx + c. Use conversion graphs. Plot a line graph from a table of values.	3	4	Recognise and use direct proportion on a graph. Understand the link between the unit ratio and the gradient.	
	11.8 Proportion problems	Relate common sense to real life problems.			Recognise different types of proportion. Solve word problems involving direct and inverse proportion.	254/155
END OF TERM 4 TEST						
HALF TERM						
	12 Right-angled triangles	Rearrange simple formulae and equations, as preparation for rearranging trigonometric formulae. Recall basic angle facts. Understand when to leave an answer in surd form. Plot coordinates in all four quadrants and draw axes. Round to a specified degree of accuracy.	2	5		257
22/02/2021	12.1 Pythagoras' theorem 1	Calculate of simple squares and square roots. Substitute into and evaluate expressions. Round answers to a specified degree of accuracy.	2	4	Understand Pythagoras' theorem. Calculate the length of the hypotenuse in a right-angled triangle. Solve problems using Pythagoras' theorem.	257
	12.2 Pythagoras' theorem 2	Understand the meaning of ≠. Interpret a surd expression shown on the calculator display. Identify the hypotenuse, and calculate its length.	4	5	Calculate the length of a line segment AB. Calculate the length of a shorter side in a right-angled triangle.	260
01/03/2021	12.3 Trigonometry: the sine ratio 1	Simplify fractions. Convert fractions to decimals using a calculator.	3	5	Understand and recall the sine ratio in right-angled triangles. Use the sine ratio to calculate the length of a side in a right-angled triangle. Use the sine ratio to solve problems.	329
	12.4 Trigonometry: the sine ratio 2	Calculate the sine of an angle in a right-angled triangle. Use the sin key on a calculator.	3	5	Use the sine ratio to calculate an angle in a right-angled triangle. Use the sine ratio to solve problems.	329 330,331
08/03/2021	12.5 Trigonometry: the cosine ratio	Identify the hypotenuse and adjacent side in a right-angled triangle.	3	5	Understand and recall the cosine ratio in right-angled triangles. Use the cosine ratio to calculate the length of a side in a right-angled triangle. Use the cosine ratio to calculate an angle in a right-angled triangle. Use the cosine ratio to solve problems.	329 330,331
	12.6 Trigonometry: the tangent ratio	Identify the opposite and adjacent sides in right-angled triangles.	3	5	Understand and recall the tangent ratio in right-angled triangles. Use the tangent ratio to calculate the length of a side in a right-anglesd triangle. Use the tangent ratio to calculate an angle in a right-angled triangle. Solve problems using an angle of elevation or depression.	329 330,331
15/03/2021	12.7 Finding lengths and angles using trigonometry	Identify the sine, cosine and tangent ratios.	4	5	Understand and recall trigonometric ratios in right-angled triangles. Use trigonometric ratios to solve problems. Know the exact values of the sine, cosine and tangent of some angles.	330,331 341
	13 Probability	Add and multiply fractions and decimals. Have experience of expressing one number as a fraction or percentage of another number. Convert between fractions, decimals and percentages. Understand the terms impossible, unlikely, even chance, likely, certain.	2	5		

		Calculate theoretical probabilities for simple situations, e.g. spinner landing on a given colour.				
22/03/2021	13.1 Calculating probability	Write probability as a fraction, a decimal and a percentage. Add and subtract fractions.	2	3	Calculate simple probabilities from equally likely events. Understand mutually exclusive and exhaustive outcomes.	#######
	13.2 Two events	List outcomes. Simplify fractions.	3	3	Use two-way tables to record the outcomes from two events. Work out probabilities from sample space diagrams.	253,319
29/03/2021	13.3 Experimental probability	Convert fractions, decimals and percentages. Compare fractions. Understand theoretical probability (single event). Use two-way tables.	2	4	Find and interpret probabilities based on experimental data. Make predictions from experimental data.	248
	13.4 Venn diagrams	Add and subtracting equivalent fractions. List primes and multiples. Calculate probabilities.	2	3	Use Venn diagrams to work out probabilities. Understand the language of sets and Venn diagrams.	

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