

**UNIT: Trigonometry**

Uses (uses) his/her knowledge (prior knowledge) of ratio and proportion to investigate similar triangles; and

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Solves problems related to similarity

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Solves problems involving right triangles, using the primary trigonometric ratios; and

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Solves problems using the Pythagorean theorem

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Solves problems involving acute triangles, using the sine law and the cosine law

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**UNIT: Analytic Geometry**

Models problems involving the intersection of two straight lines; AND

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Moves problems involving the intersection of two straight lines

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Solves problems using analytic geometry involving properties of lines and line segments

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Verifies geometric properties of triangles and quadrilaterals, using analytic geometry

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**UNIT: Quadratic Relations of the Form  $y = ax^2 + bx + c$** 

Determines the basic properties of quadratic relations

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Relates transformations of the graph of  $y = x^2$  TO the algebraic representation

$$y = a(x - h)^2 + k$$

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Solves quadratic equations; AND

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Interprets (interprets) the solutions (to quadratic equations) with respect TO the corresponding

relations

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Solves problems involving quadratic relations