

The City School

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| **Term 1** | | |
| **Unit** | **Topic** |
| Variations | • Direct Variation  • Inverse Variation |
| Algebraic equations & Fractions | Algebraic representation and formulae   Algebraic manipulation |
| Indices |  Rules of Indices   Different types of indices |
| Pythagoras  Theorem | Pythagoras theorem |
| Trigonometric  Ratios | • Trigonometric Ratios  • Apply the sine, cosine and tangent ratios for acute angles to calculate:  o an angle  o a sides of a right angle triangle  • Practical application of  trigonometry |
| Mensuration (A) | **Length of arc and area of Sector**  • area and circumference of a circle  • area and perimeter of shaded regions  • arc length  • area of sector  • word problems |
| Mensuration (B) | Volume and surface area of:  • a pyramid  • a cone  • a sphere  • compound shapes |

**North Nazimabad Boys Campus**

**Syllabus for 1st Term**

**Mathematics**

**Class – 9**