**Coordinates Geometry**

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| 1 Distance/length formulae  * Distance between 2 2D points * Distance between 2 3D points |  |
| 2 Midpoint between 2 points |  |
| 3 Slope between 2 points |  |
| 4 Line equation  * Need Slope value * Need y-intercept |  |
| 5 Parallel Lines  * Are the points collinear? | Check if collinear:  If both slope is same |
| 6 Perpendicular Lines |  |
| 7 Perpendicular Bisector of AB  * Get the perpendicular line of line AB | 1. Get midpoint of AB 2. Get slope of line AB : 3. Get perpendicular slope of AB = |
| 8 Ratio Theorem |  |
| 9 Area of polygon |  |

## Exercise

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| 1 | Find the midpoint of PR,  The coordinates of point S  Show that PQRS is a rhombus |