

Cartesian Plane

Drawing The Cartesian Plane

MATHOMAT V2
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Linear Radian Scale, 1 Radian = 1.5cm

Number Line - cm divisions

100 Divisions (Percentage Points)

Radius to Tenths

Bearing

Degrees

Circle Centre Finder

0.5mm Pencil Allowance

Normal Frequency Curve

$y = \sqrt{x}$

$y = \sqrt[3]{x}$

$y = \sin x$

1 Octagon, 2 Hexagon, 3 Pentagon, 4 Square, 5 Triangle, 6 Circle, 7 Ellipse, 8 Isosceles, 9 Scalene, 10 Polygon Cluster, 11 Clock Face, 12 Circle Cluster, 13 Hexagon, 14 Triangle, 15 Octagon, 16 Ellipse Cluster, 17 Hexagon, 18 Pentagon, 19 Dodecagon, 20 Rhombus, 21 Rhombus, 22 Isosceles, 23 Square, 24 Ellipse Cluster, 25 Golden Rectangle, 26 Rhombus, 27 Rhombus, 28 Square, 29 Kite, 30 Rhombus, 31 Rhombus, 32 Square, 33 Kite, 34 Trapezium, 35 Trapezium, 36 Concave Quadrilateral, 37 Arrow Head, 38 Arrow Head, 39 Arrow Head, 40 Parallelogram, 41 Trapezium, 42 Trapezium, 43 Equilateral, 44 Isosceles, 45 Triangle Cluster, 46 Triangle Cluster, 47 Triangle Cluster, 48 Triangle Cluster, 49 Triangle Cluster

Australian Patent Appl. No. 2018900281 and Design Appl. No. 201810792

Problem solving steps:
1- analyse,
2- think,
3- do,
4- check

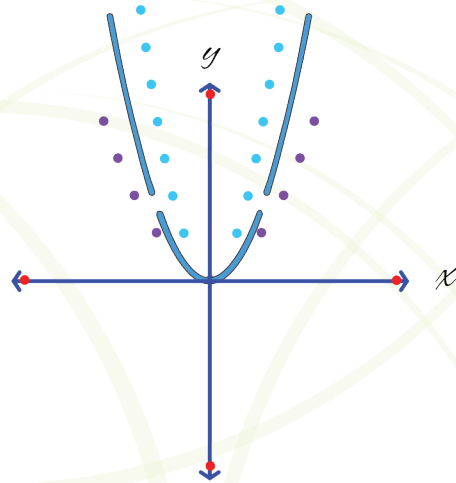
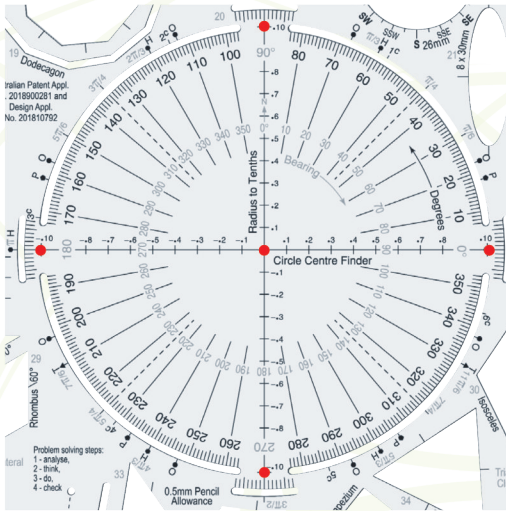
Scale 1:20.00
Scale 1:2
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Scale 1:20

Name:

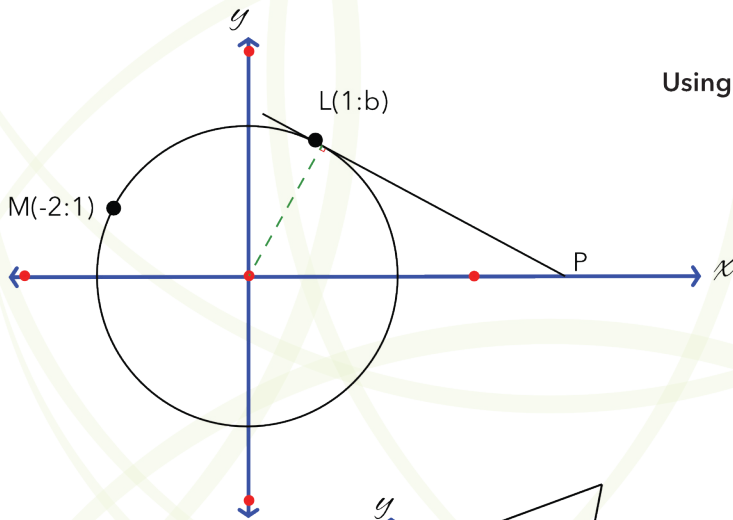
Cartesian Plane examples

Sketch the Cartesian Plane

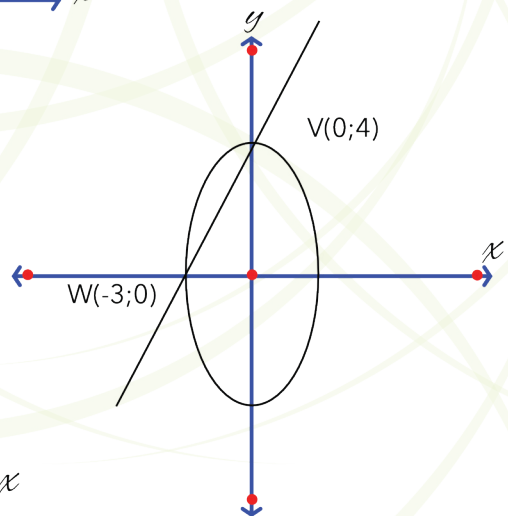
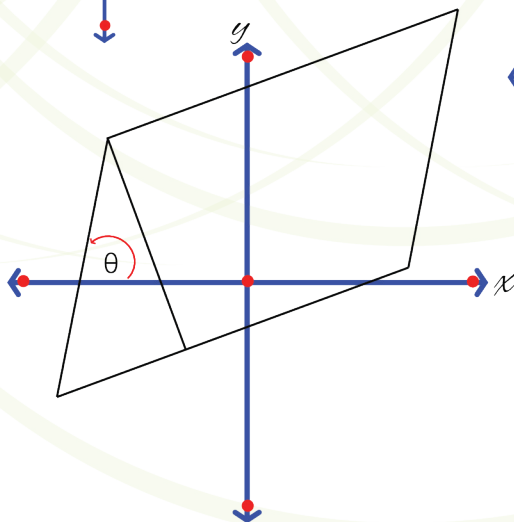
Join the dots to form a system of axes.



Use the Cartesian Plane to explore the parabola.



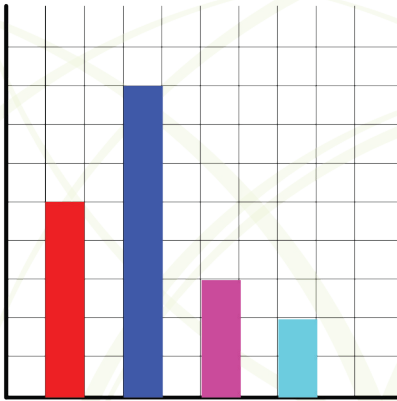
Using the Cartesian Plane to explore Analytic Geometry problems.



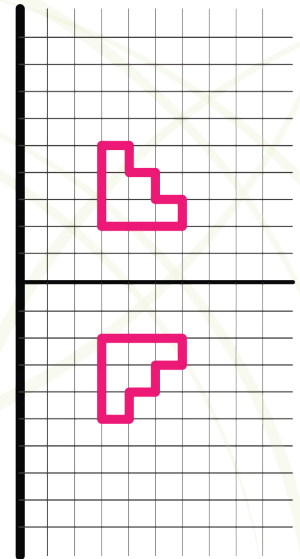
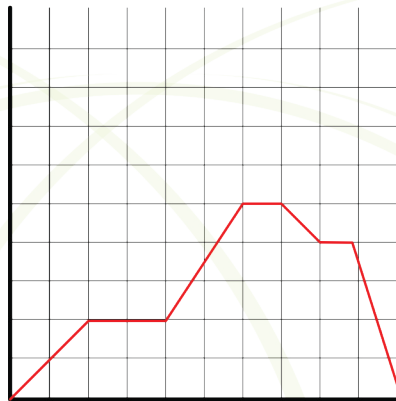
Some Uses for Grids

The Square Grid

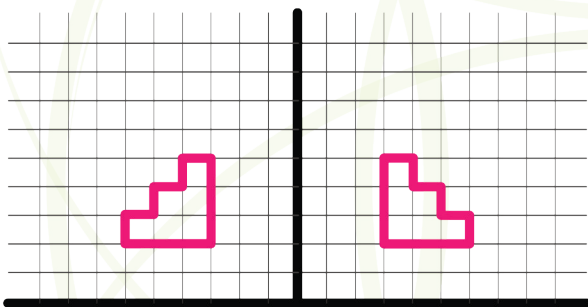
Bar graph.



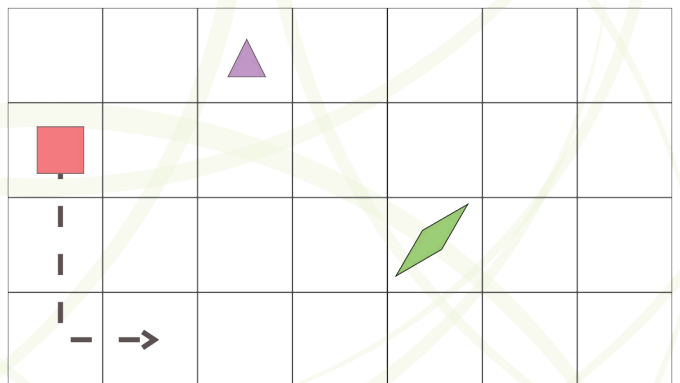
Line graph



Reflection over the x-axis, not to be confused with a rotation.

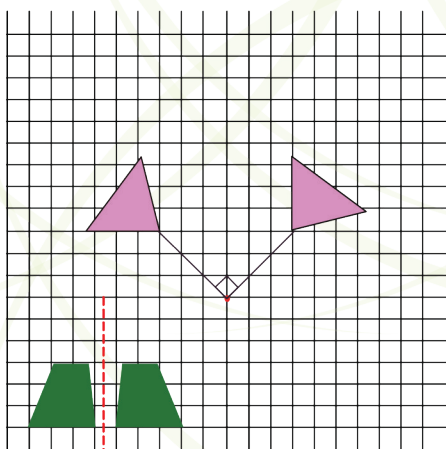


Reflection over the y-axis, not to be confused with a rotation.



Use the square (the bigger the better) to draw a grid. Have the students move cut-out shapes to perform the transformation that is being dictated.

For example: Red square: Translate two down and one to the right.

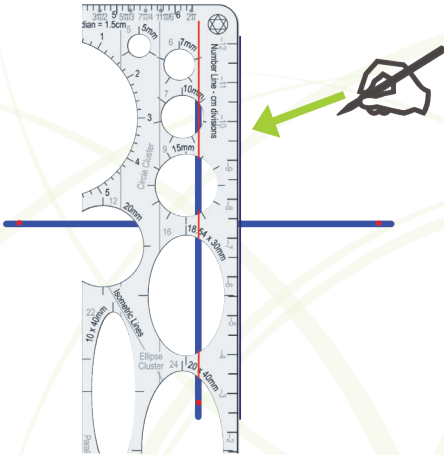


A grid for transformations

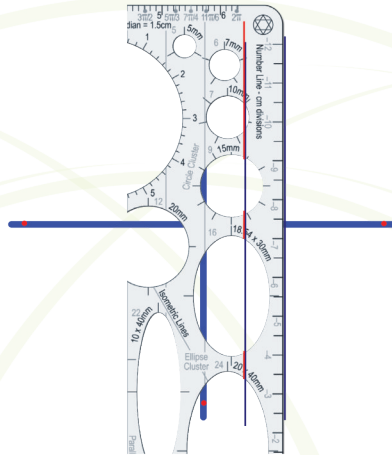


Drawing a grid

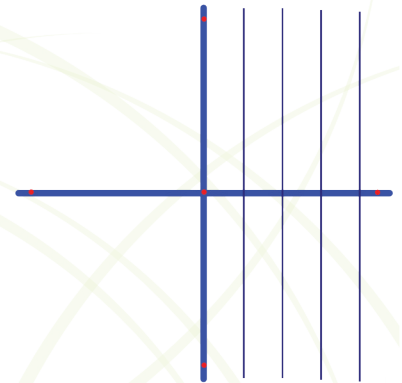
Using Parallel lines for a Square Grid



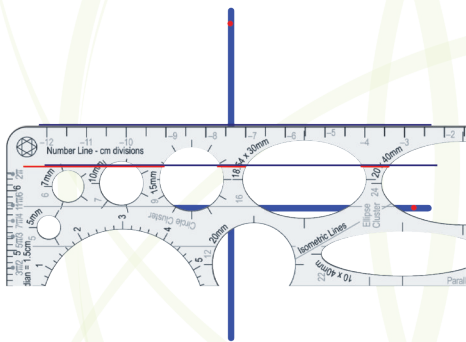
Fit the first parallel line on the template on the y-axis and draw a line.



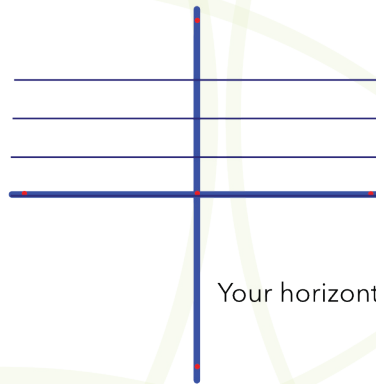
Fit the first parallel line on the template on each new line you draw.



Your vertical lines should look like this.

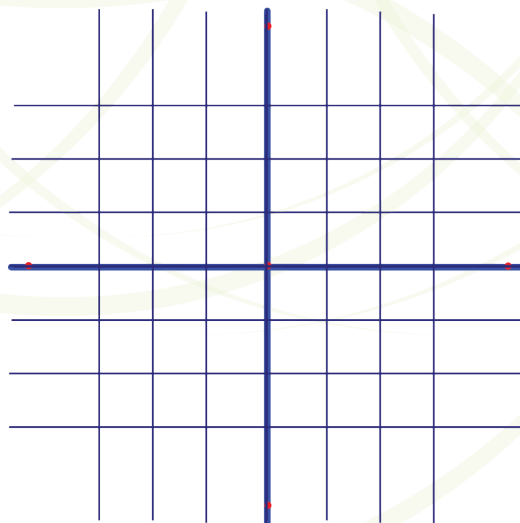


Turn you template and fit the first parallel line on the x-axis. Repeat the process as you have done for the vertical lines.



Your horizontal lines should look like this.

Repeat the process on the left side of the y-axis as well as the bottom of the x-axis.



A completed grid.

