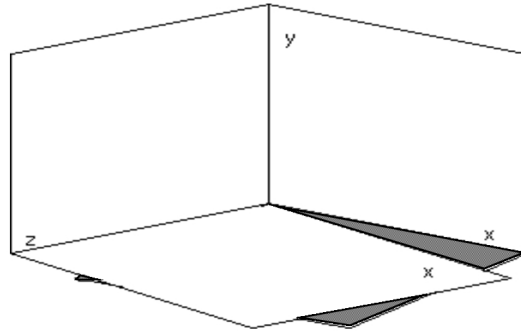


3D Model of a plane intersecting coordinate axes.

This is a means of demonstrating how a plane appears when it intersects the three axes in coordinate space. This model can be easily constructed, then folded flat for storage in a notebook.

1. Copy the grid (or one like it) onto card stock. You will need another sheet (preferably of a different color) to model the intersecting plane.
2. Cut the grid along the dotted line.
3. Fold the card inward along the axes.
4. Fold the card so that the two copies of the x-axis labels match up. The model should look like one corner of a box.



5. Calculate the x, y, and z, intercepts of a simple 3 variable equation. For example, these work well:

	x-intercept:	y-intercept:	z-intercept:
a. $x + y + z = 2$	(2, 0, 0)	(0, 2, 0)	(0, 0, 2)
b. $x + 1.5y + 2z = 3$ (pictured)	(3, 0, 0)	(0, 2, 0)	(0, 0, 1.5)
c. $2x + 1.5y + z = 4$	(2, 0, 0)	(0, 2 ² / ₃ , 0)	(0, 0, 4)