

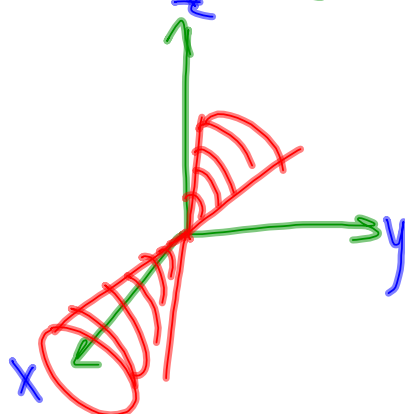
30. $x^2 = 2y^2 + 3z^2$

$$-2y^2 = 3z^2$$

$$x = \pm \sqrt{3} z$$

Cone shaped figure
w/ elliptical cross sections
centered at x-axis.

$$x = \pm \sqrt{2} y$$



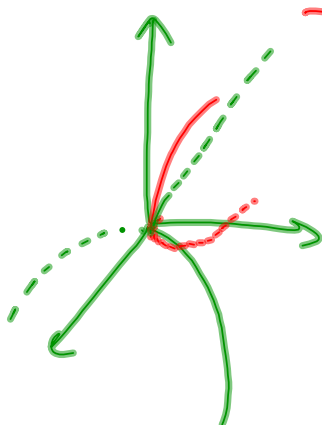
32. $4x - y^2 + 4z^2 = 0$

$$x = \frac{y^2}{4}$$

$$x = -z^2$$

$$y^2 = 4z^2$$

$$y = \pm 2z$$



$$x=1$$

$$4 - y^2 + 4z^2 = 0$$

$$y^2 - 4z^2 = 4$$

36. $x^2 - y^2 + z^2 - 2x + 2y + 4z + 2 = 0$

$$x^2 - 2x + 1 \quad -y^2 + 2y - 1 \quad +z^2 + 4z + 4 = \textcircled{-2}$$

~~+~~

$$(x-1)^2 - (y-1)^2 + (z+2)^2 = 2$$

$\textcircled{+4}$

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$$y=1$$

$$y=1$$