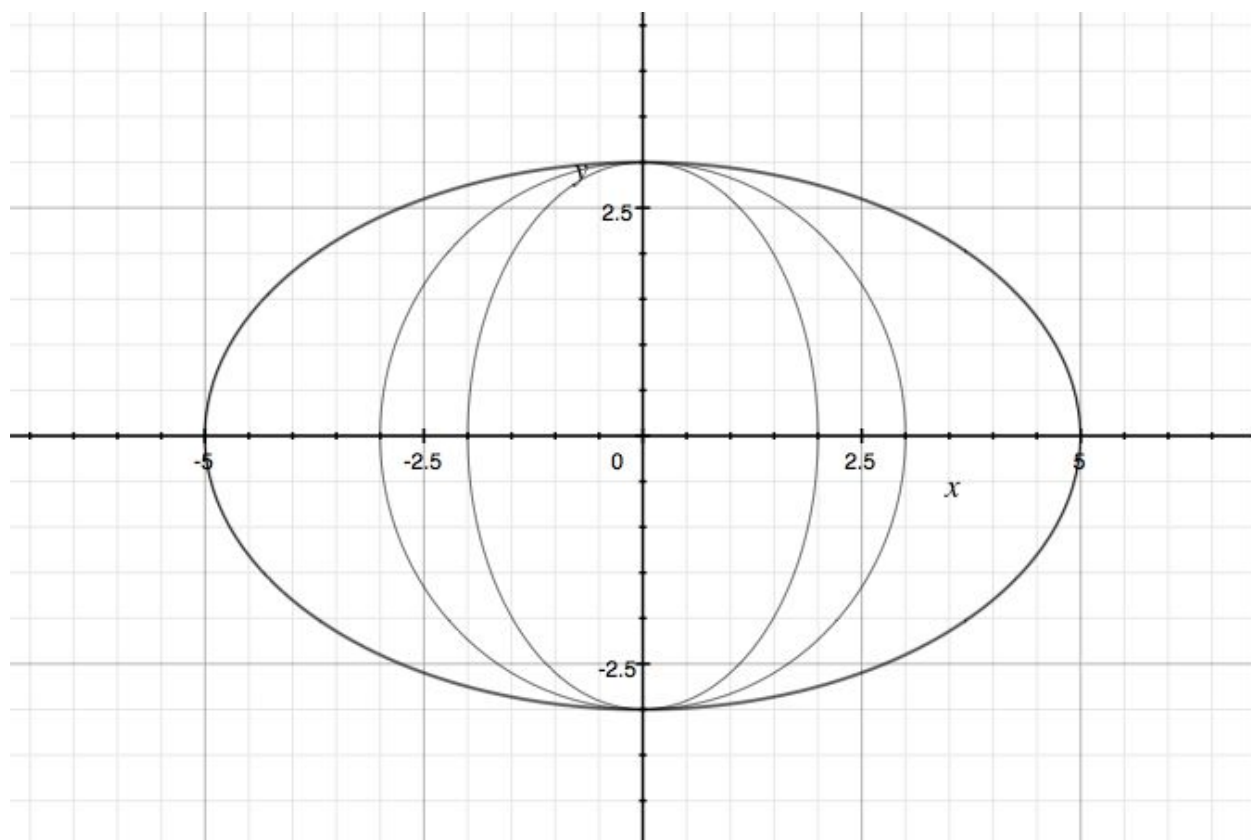


Circle and Ellipse Grapher Lab



$$\frac{y^2}{9} + \frac{x^2}{4} = 1$$

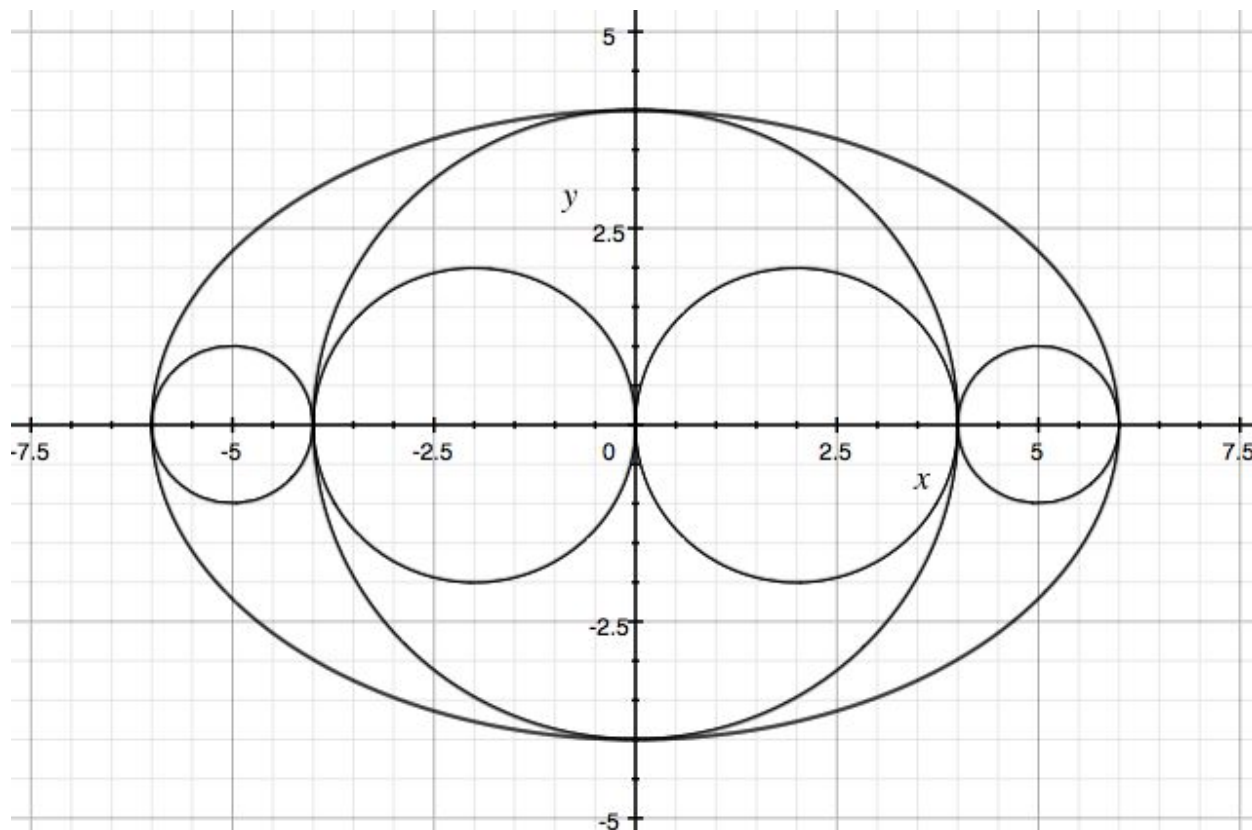
$$4y^2 + 9x^2 = 36$$

$$\frac{x^2}{9} + \frac{y^2}{9} = 1$$

$$x^2 + y^2 = 9$$

$$\frac{x^2}{25} + \frac{y^2}{9} = 1$$

$$9x^2 + 25y^2 = 225$$



$$(x+2)^2+y^2=4$$

$$x^2+y^2+4x=0$$

$$(x-2)^2+y^2=4$$

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

$$x^2+y^2=16$$

$$\frac{x^2}{16} + \frac{y^2}{16} = 1$$

$$(x+5)^2+y^2=1$$

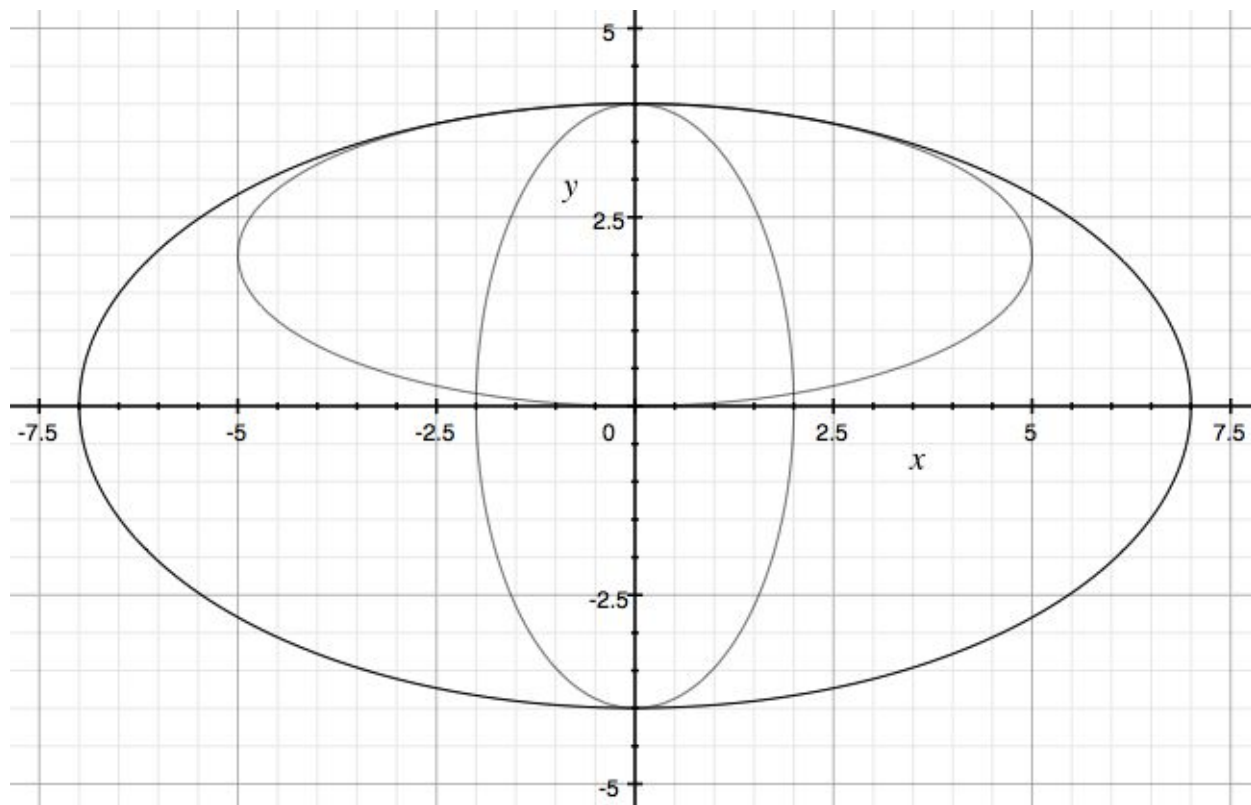
$$x^2+y^2+10x=-24$$

$$(x-5)^2+y^2=1$$

$$x^2+y^2-10x=-24$$

$$\frac{x^2}{36} + \frac{y^2}{16} = 1$$

$$4x^2+9y^2=144$$



$$\frac{y^2}{16} + \frac{x^2}{4} = 1$$

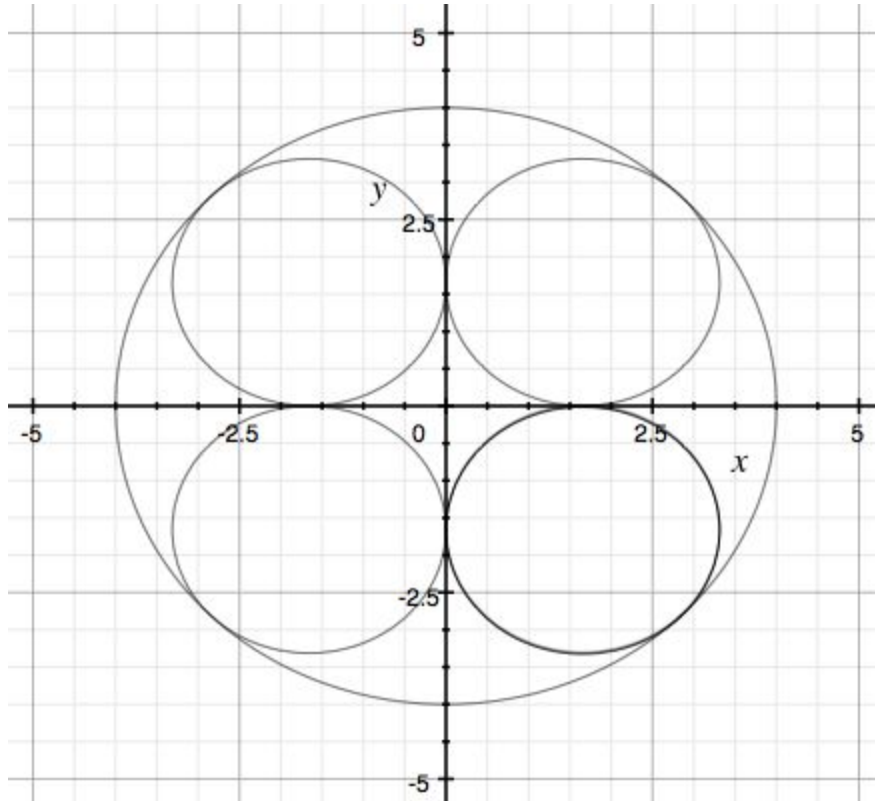
$$y^2 + 4x^2 = 16$$

$$\frac{x^2}{25} + \frac{(y-2)^2}{4} = 1$$

$$4x^2 + 25y^2 - 100y = 0$$

$$\frac{x^2}{49} + \frac{y^2}{16} = 1$$

$$16x^2 + 49y^2 = 784$$



$$x^2 + y^2 = 16$$

$$\frac{x^2}{16} + \frac{y^2}{16} = 1$$

$$\left(x - \frac{4\sqrt{2}}{2+\sqrt{2}}\right)^2 + \left(y - \frac{4\sqrt{2}}{2+\sqrt{2}}\right)^2 = \frac{16}{3+2\sqrt{2}}$$

$$x^2 + y^2 - \frac{(8x\sqrt{2})}{2+\sqrt{2}} - \frac{(8y\sqrt{2})}{2+\sqrt{2}} = -\frac{16}{3+2\sqrt{2}}$$

$$\left(x + \frac{4\sqrt{2}}{2+\sqrt{2}}\right)^2 + \left(y - \frac{4\sqrt{2}}{2+\sqrt{2}}\right)^2 = \frac{16}{3+2\sqrt{2}}$$

$$x^2 + y^2 + \frac{(8x\sqrt{2})}{2+\sqrt{2}} - \frac{(8y\sqrt{2})}{2+\sqrt{2}} = -\frac{16}{3+2\sqrt{2}}$$

$$\left(x + \frac{4\sqrt{2}}{2+\sqrt{2}}\right)^2 + \left(y + \frac{4\sqrt{2}}{2+\sqrt{2}}\right)^2 = \frac{16}{3+2\sqrt{2}}$$

$$x^2 + y^2 + \frac{(8x\sqrt{2})}{2+\sqrt{2}} + \frac{(8y\sqrt{2})}{2+\sqrt{2}} = -\frac{16}{3+2\sqrt{2}}$$

$$\left(x - \frac{4\sqrt{2}}{2+\sqrt{2}}\right)^2 + \left(y + \frac{4\sqrt{2}}{2+\sqrt{2}}\right)^2 = \frac{16}{3+2\sqrt{2}}$$

$$x^2 + y^2 - \frac{(8x\sqrt{2})}{2+\sqrt{2}} + \frac{(8y\sqrt{2})}{2+\sqrt{2}} = -\frac{16}{3+2\sqrt{2}}$$