

Putting all those pieces together, and color-coded to match equation to graph:

Here the terms are written more clearly, with the domain restrictions spelled out explicitly

$$\blacksquare \left(\frac{x}{7}\right)^2 + \left(\frac{y}{3}\right)^2 = 1, |x| > 3, y > \frac{(-3)\sqrt{33}}{7}$$

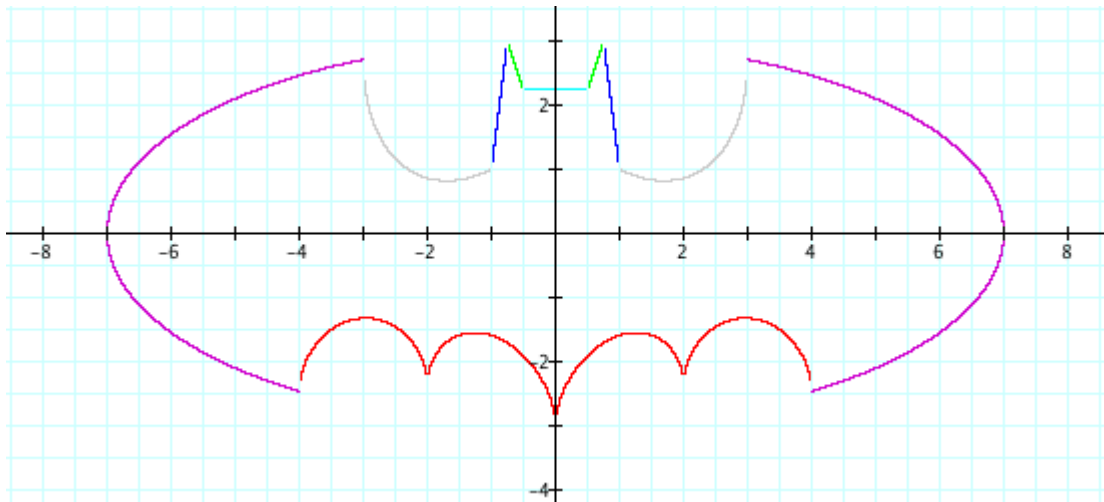
$$\blacksquare y = \left|\frac{x}{2}\right| - \left(\frac{3\sqrt{33}-7}{112}\right)x^2 - 3 + \sqrt{1 - (||x|-2|-1)^2}$$

$$\blacksquare y = 9 - 8|x|, 0.75 < |x| < 1$$

$$\blacksquare y = 3|x| + 0.75, 0.5 < |x| < 0.75$$

$$\blacksquare y = 2.25, |x| < 0.5$$

$$\blacksquare y = \frac{6\sqrt{10}}{7} + (-0.5|x| + 1.5) - \frac{3\sqrt{10}}{7}\sqrt{4 - (|x| - 1)^2}, |x| > 1$$



$$\blacksquare \left(\left(\frac{x}{7}\right)^2 \sqrt{\frac{|x|-3}{|x|+3}} + \left(\frac{y}{3}\right)^2 \sqrt{\frac{y + \frac{3\sqrt{33}}{7}}{y - \frac{3\sqrt{33}}{7}}} - 1 \right) \left(\left|\frac{x}{2}\right| - \left(\frac{3\sqrt{33}-7}{112}\right)x^2 - 3 + \sqrt{1 - (||x|-2|-1)^2} - y \right) \left(9 \sqrt{\frac{(|x|-1)(|x|-0.75)}{(1-|x|)(|x|-0.75)}} - 8|x| - y \right) \\ \left(3|x| + 0.75 \sqrt{\frac{(|x|-0.75)(|x|-0.5)}{(0.75-|x|)(|x|-0.5)}} - y \right) \left(2.25 \sqrt{\frac{(x-0.5)(x+0.5)}{(0.5-x)(0.5+x)}} - y \right) \left(\frac{6\sqrt{10}}{7} + (1.5 - 0.5|x|) \sqrt{\frac{|x|-1}{|x|+1}} - \frac{6\sqrt{10}}{14} \sqrt{4 - (|x|-1)^2} - y \right) = 0$$