SI Worksheet 6

Using your knowledge of graphing transformations, find the equations of the following shapes:

1) Heart
2) Lightning
3) Eyeball
4) Teddy bear

You may use any or all of the following functions:

1) Linear $\quad\quad\quad\quad$ $y = mx + b$

2) Square $\quad\quad\quad\quad$ $y = x^2$

3) Square root $\quad\quad\quad$ $y = \sqrt{x}$

4) Cube $\quad\quad\quad\quad$ $y = x^3$

5) Cube root $\quad\quad\quad$ $y = \sqrt[3]{x}$

6) Absolute value $\quad\quad$ $y = |x|$

7) Rational $\quad\quad\quad$ $y = \frac{1}{x}$

8) Exponential $\quad\quad\quad$ $y = e^x$

9) Circle $\quad\quad\quad\quad$ $r^2 = x^2 + y^2$

10) Sine $\quad\quad\quad\quad$ $y = sin(x)$

11) Cosine $\quad\quad\quad$ $y = cos(x)$

12) Tangent $\quad\quad\quad$ $y = tan(x)$

You can graph them using desmos if you wish, but you must come up with the equations! None of your equations have to be exactly the same; have fun with it!