1) $f(x) = \sqrt[3]{(x+5)} + 8$

2) $f(x) = 2\sqrt[3]{x-1}$

3) $f(x) = \sqrt[3]{-\frac{1}{3}x} - 4$

4) $f(x) = -\frac{1}{2}\sqrt[3]{-\frac{1}{4}(x+6)} + 2$

5) $f(x) = 3\sqrt[3]{\frac{1}{2}(x-3)} + 6$

6) $y = -\frac{1}{2}f\left(-\frac{1}{4}(x+6)\right) + 2$

Given the function $p(x) = \sqrt[3]{x}$, write equations for each of the following situations.

1. left 5, up 8
2. vertical stretch of 2, right 1
3. reflect over the x-axis, horizontal stretch of 3, down 4
4. reflect over the x and y axis, vertical compression of 2, horizontal stretch of 4, left 6, and up 2
5. the point of inflection is $(3, 6)$, and the next 2 critical points are $(5, 10)$ and $(1, 2)$
6. write a general equation for the function $y = F(x)$ using the transformations in #4