

Sketch the graph of each function. For each function, find:

- a) shifts, if any
- b) the basic shape
- c) the vertex
- d) all intercepts, both y- and x-
find the x-intercepts using the “ \pm square root method”

1. $f(x) = (x-3)^2 - 4$

2. $f(x) = (x+2)^2 - 1$

3. $f(x) = (x-4)^2$

4. $f(x) = x^2 - 9$

5. $f(x) = (x+1)^2 + 4$

6. $f(x) = (x-3)^2 + 2$