13) Let \( f(x) = \begin{cases} 
  x + 2 & \text{if } x < -4 \\
  x^2 - 1 & \text{if } -4 \leq x \leq 3 \\
  -x + 6 & \text{if } x > 3
\end{cases} \)

2pts each \( a) \) find \( f(1) \) \( b) \) find \( f(3) \)

14) Sketch a graph of \( f(x) \) from problem 13. 3pts
15. Consider the function \( f(x) \)

\[
f(x) \quad (0, 2) \\
(-3, 0) \\
(4, -1)
\]

\[
\text{graph/find} \\
f(x+3) - 2
\]

16. Consider the function \( f(x) \)

\[
f(x) \quad (2, 3) \\
(-3, 0) \\
(0, 4)
\]

\[
\text{graph/find} \\
2f(x)
\]

17. Let \( g(x) = 3x^2 + 5x - 2 \). Find \( g(x-3) \)
15. Graph \( f(x) = -2|x-3| + 4 \)

- basic shape
- \((h, k)\)
- \(a\)
- final shape

- Domain
- Range

16. Graph \( f(x) = (x+1)^3 - a \)

- basic shape
- \((h, k)\)
- \(a\)
- final shape

- Domain:
- Range:
17. Sketch a graph of \( f(x) = -\sqrt{x + 1} - 2 \)

- Basic shape
- \((h, k)\)
- \(a\)
- \(tx\) or \(-x\)
- Final shape

18. Sketch a graph of \( f(x) = a\sqrt{3-x} + 1 \)

- Basic shape
- \((h, k)\)
- \(a\)
- \(-x\) or \(+x\)
- Final shape

Domain:
Range: