

Match the given rules with appropriate description and graph.

A1 $f(x) = x^2 + 2$

A2 $f(x) = (x - 1)^2$

A3 $f(x) = -x^2 + 1$

A4 $f(x) = \frac{1}{2}x^2 - 2$

A5 $f(x) = |x + 1|$

A6 $f(x) = \frac{1}{2}|x + 1|$

A7 $f(x) = -2|x + 2| - 1$

A8 $f(x) = -\sqrt{x + 1}$

A9 $f(x) = 2\sqrt{x + 2}$

A10 $f(x) = -x^3 + 2$

A11 $f(x) = (x + 2)^3 - 1$

A12 $f(x) = -(x + 2)^3 - 1$

- Horizontal Shift: Left 2
- Vertical Shift: Down 1

- Vertical Stretch: 2
- Horizontal Shift: Left 2

- Horizontal Shift: Right 1

- Vertical Shift: Up 2

- Reflection across x -axis
- Vertical Stretch: 2
- Horizontal Shift: Left 2
- Vertical Shift: Down 1

- Reflection across x -axis
- Vertical Shift: Up 2

- Reflection across x -axis
- Vertical Shift: Up 1

- Reflection across x -axis
- Horizontal Shift: Left 1

- Vertical Compression: $\frac{1}{2}$
- Vertical Shift: Down 2

- Horizontal Shift: Left 1

- Reflection across x -axis
- Horizontal Shift: Left 2
- Vertical Shift: Down 1

- Vertical Compression: $\frac{1}{2}$
- Horizontal Shift: Left 1

