

For each function, **identify the base function**, **describe the transformation** using proper math terminology, **sketch the graph** and **state the domain and range**.

**Lesson 2.3B/2.4**

1.  $f(x) = (x+1)^3$

2.  $f(x) = |x| + 2$

3.  $f(x) = (x-5)^3 - 2$

4.  $f(x) = |x + 4| - 3$

**Lesson 2.4**

1.  $f(x) = -|x - 3|$

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

**Lesson 2.5**

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

2.  $f(x) = |4x|$

3.  $f(x) = \frac{|x|}{2}$

4.  $f(x) = \left(\frac{1}{2}x\right)^3$

**Lesson 2.6A**

1.  $f(x) = -\frac{1}{2}(x+1)^3 - 2$

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

3.  $f(x) = 3\left(\frac{1}{2}x - 2\right)^3$

4.  $f(x) = -\left|\frac{1}{3}x\right| + 3$

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