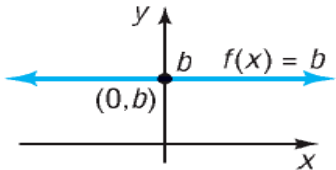
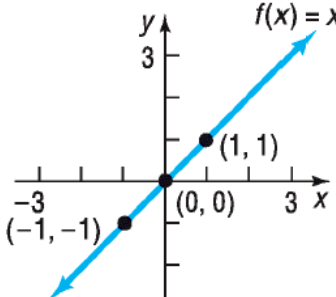
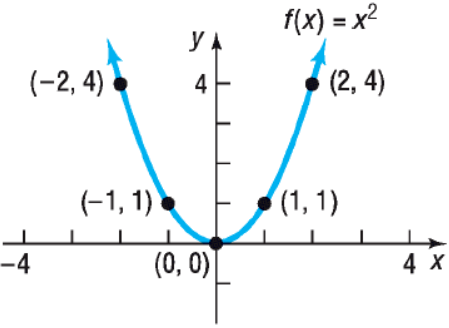
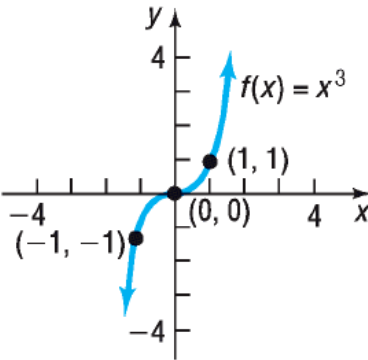
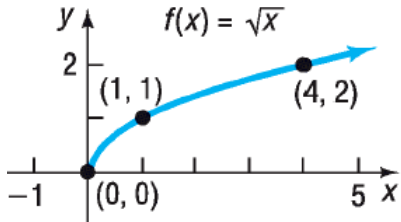
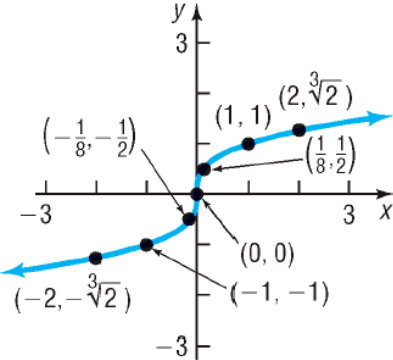
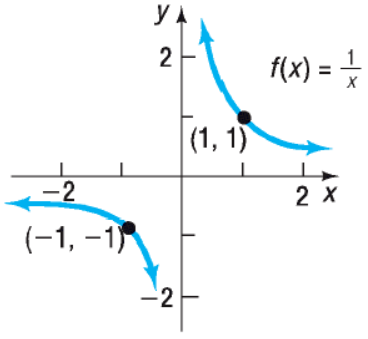
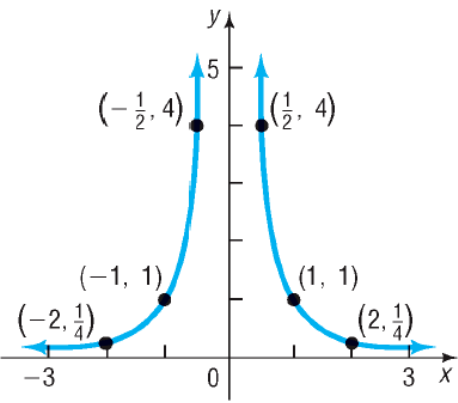
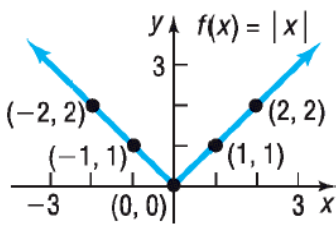
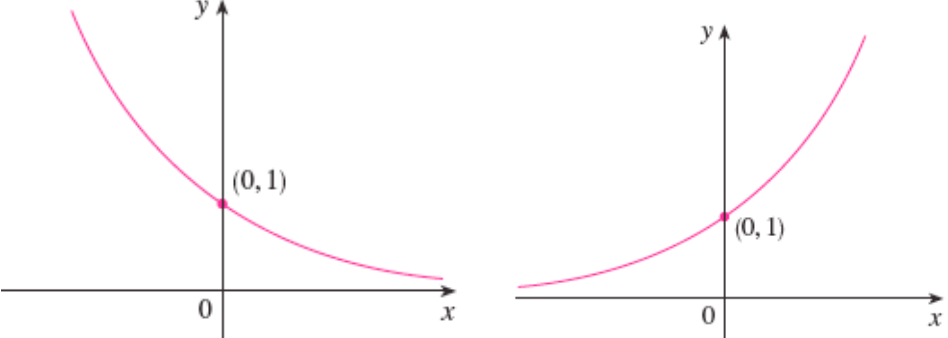


A Library of Functions

<p><u>Constant Function</u></p> $f(x) = b$ <p>Domain: $(-\infty, \infty)$ Range: $\{b\}$</p>	
<p><u>Identity Function</u></p> $f(x) = x$ <p>Domain: $(-\infty, \infty)$ Range: $(-\infty, \infty)$</p>	
<p><u>Square Function</u></p> $f(x) = x^2$ <p>Domain: $(-\infty, \infty)$ Range: $[0, \infty)$</p> <p>(all even power functions generally have this shape)</p>	
<p><u>Cubic Function</u></p> $f(x) = x^3$ <p>Domain: $(-\infty, \infty)$ Range: $(-\infty, \infty)$</p>	
<p><u>Square Root Function</u></p> $f(x) = \sqrt{x}$ <p>Domain: $(-\infty, \infty)$ Range: $[0, \infty)$</p>	

<p>Cube Root Function</p> $f(x) = \sqrt[3]{x}$ <p>Domain: $(-\infty, \infty)$ Range: $(-\infty, \infty)$</p>	
<p>Reciprocal Function</p> $f(x) = \frac{1}{x}$ <p>Domain: $(-\infty, 0) \cup (0, \infty)$ Range: $(-\infty, 0) \cup (0, \infty)$</p>	
<p>Squared Reciprocal Function</p> $f(x) = \frac{1}{x^2}$ <p>Domain: $(-\infty, 0) \cup (0, \infty)$ Range: $[0, \infty)$</p>	
<p>Absolute Value Function</p> $f(x) = x = \begin{cases} x & \text{if } x \geq 0 \\ -x & \text{if } x < 0 \end{cases}$ <p>Domain: $(-\infty, \infty)$ Range: $[0, \infty)$</p>	
<p>Exponential Functions</p> $f(x) = a^x \text{ or } f(x) = e^{kx}$ <p>Domain: $(-\infty, \infty)$ Range: $(0, \infty)$</p>	 <p style="text-align: center;">$0 < a < 1$ or $k < 0$ $a > 1$ or $k > 0$</p>