

Example

Match each function (1-4) with a graph (a-d).

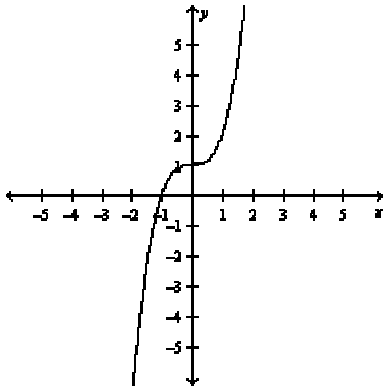
1. $y = 6x + 2$

2. $y = 2^x$

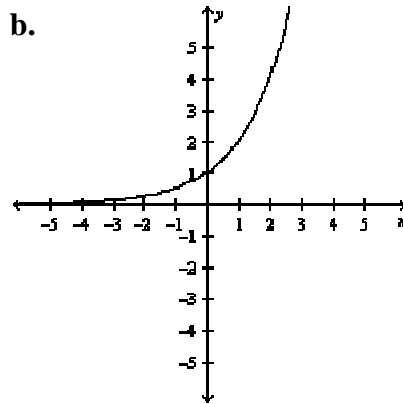
3. $y = \frac{1}{2}(x^2 - 3)$

4. $y = x^3 + 1$

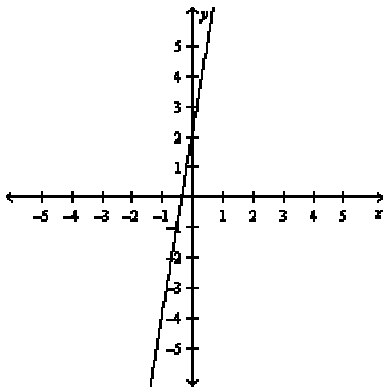
a.



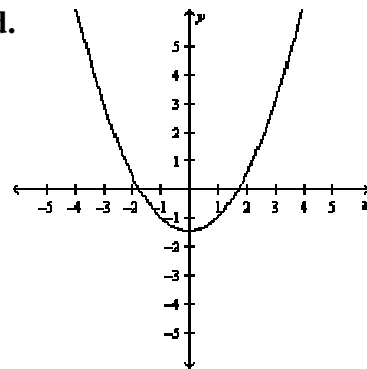
b.



c.



d.



Function 1 is linear, so it will match the linear graph c.

Function 2 is an exponential function. For graphs of exponential functions, as the x values increase, the y values will increase very quickly. This is shown in graph b.

Function 3 is a quadratic function whose graph is a parabola. This is shown in graph d.

Function 4 is a cubic function, which matches the only remaining graph, graph a.