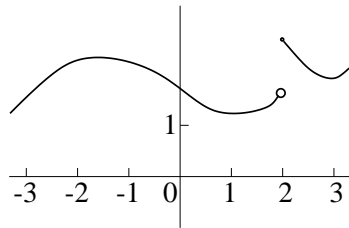


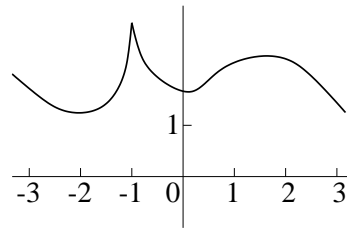
**Problem statement** The graphs of two functions,  $f(x)$  and  $f(x)$ , are shown below. Answer the following questions as well as possible by considering these graphs.

a) What is the largest possible radius of convergence of a power series centered at 0 whose sum is  $f(x)$ ?

b) What is the largest possible radius of convergence of a power series centered at 0 whose sum is  $g(x)$ ?



Graph of  $y = f(x)$



Graph of  $y = g(x)$