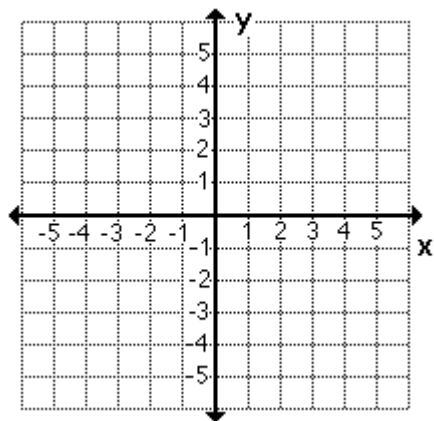


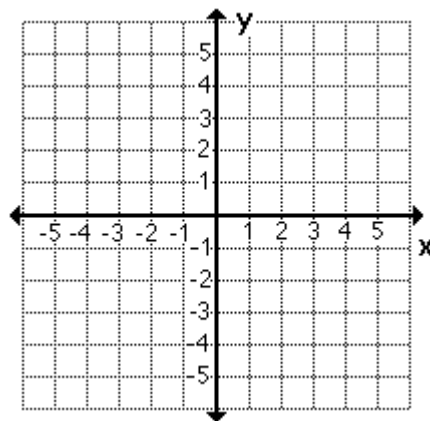
## Functions Review

**Graph each of the following functions.** *You need only label the key point or vertex for each. Do not worry about anything else. These problems are meant to quiz you on your knowledge of the parent functions and the translations thereof.*

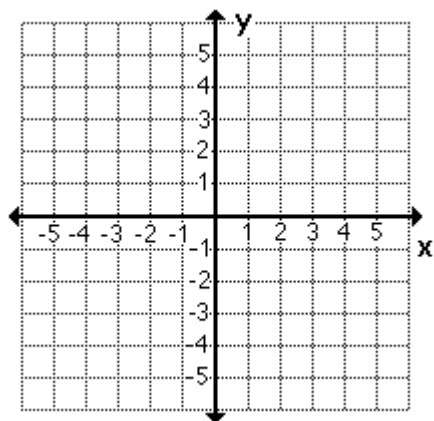
1.  $f(x) = -\sqrt{x-2} + 3$



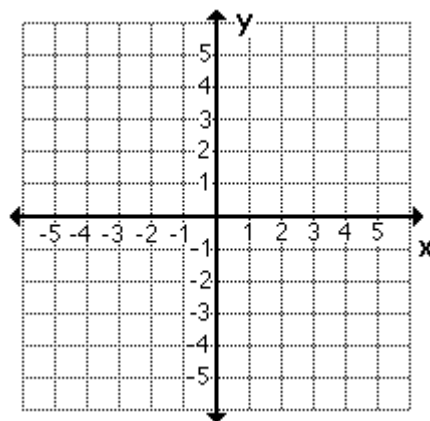
2.  $f(x) = |x-3| + 2$



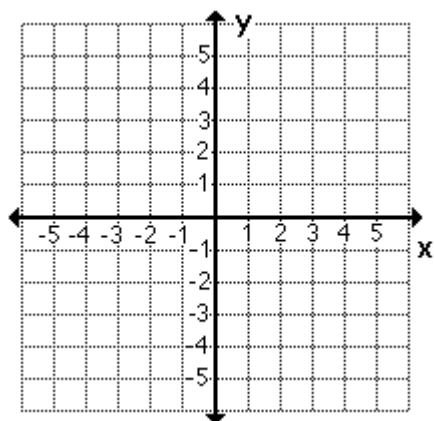
3.  $f(x) = x^2 + 2$



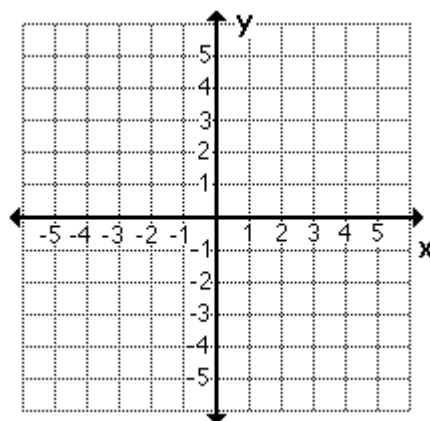
4.  $f(x) = \left(\frac{1}{2}\right)^x - 4$



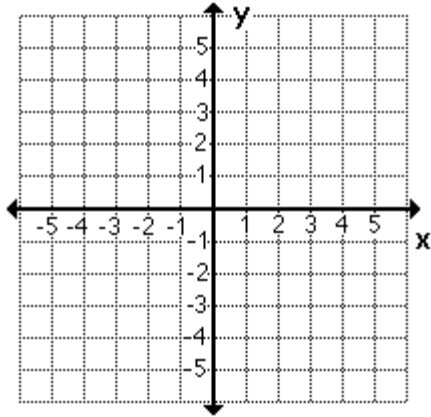
5.  $f(x) = -\log_3 x$



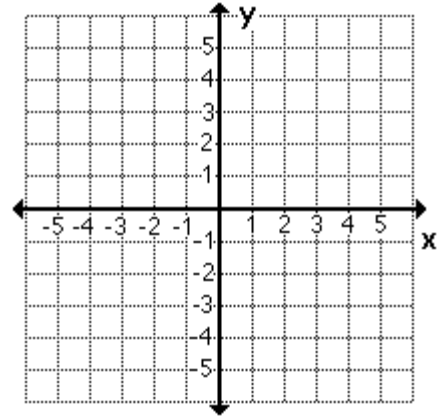
6.  $f(x) = \sqrt[3]{x+3} + 1$



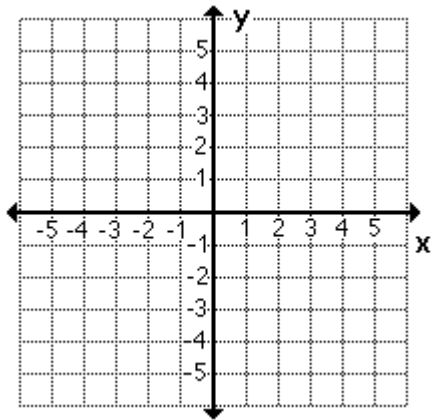
7.  $f(x) = (x+2)^3 - 4$



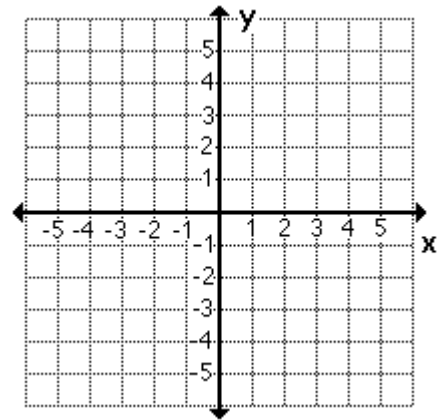
8.  $f(x) = \sqrt{-x+3} + 1$



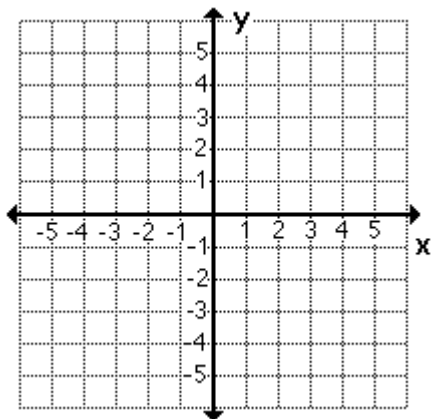
9.  $f(x) = -(x+3)^2 + 2$



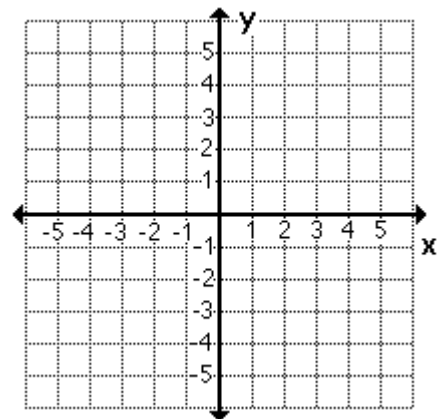
10.  $f(x) = -\sqrt[3]{x-3} - 2$



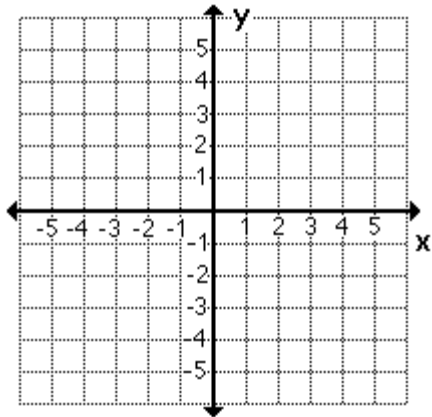
11.  $f(x) = x+3$



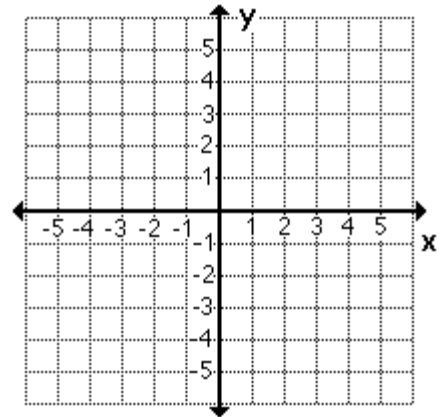
12.  $f(x) = \ln(x-2)$



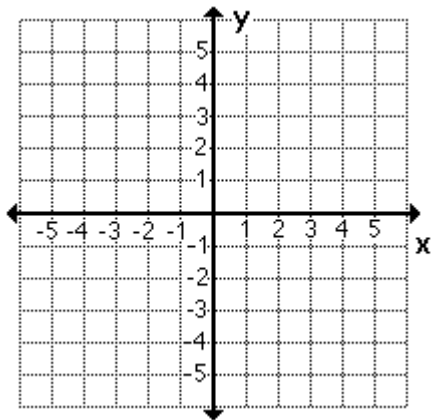
13.  $f_{(x)} = -3^{x+2} - 1$



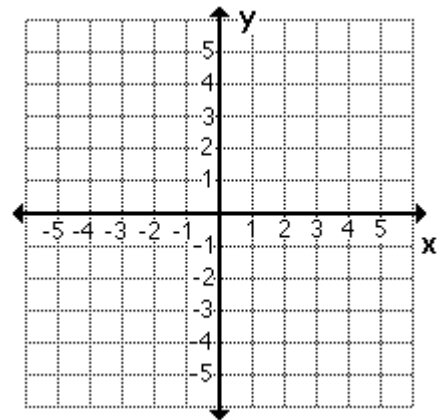
14.  $f_{(x)} = -(x+2)^3$



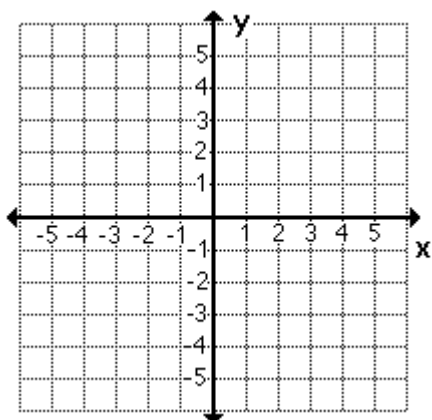
15.  $f_{(x)} = -\log_2 x + 2$



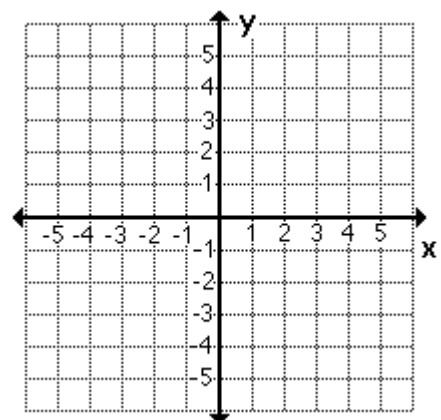
16.  $f_{(x)} = -|x-3| + 2$



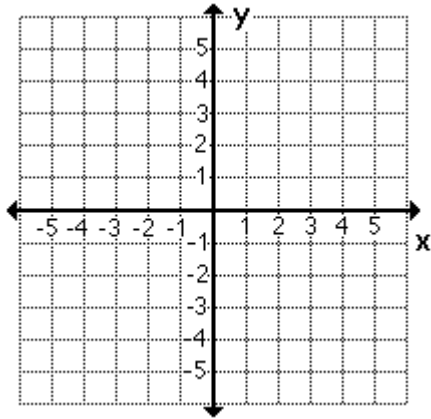
17.  $f_{(x)} = e^{x+3} + 2$



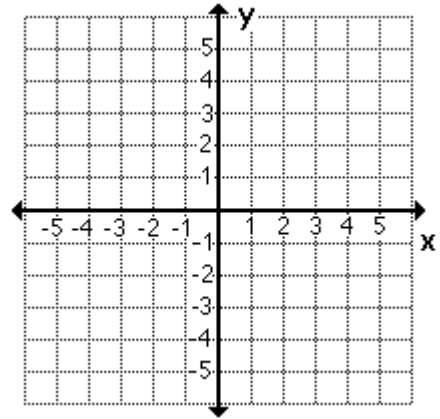
18.  $f_{(x)} = (x+3)^2 - 4$



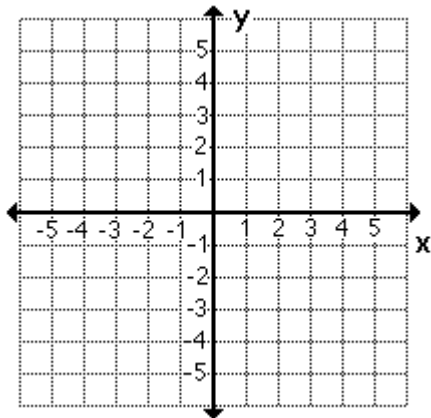
19.  $f(x) = -\left(\frac{1}{2}\right)^{x+2} + 3$



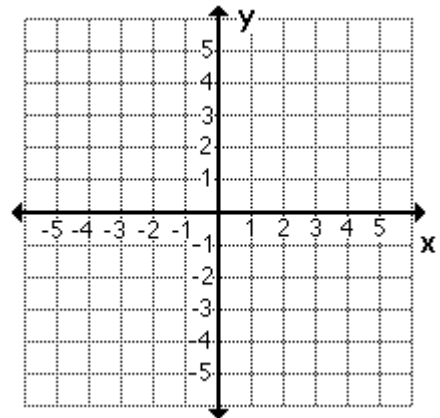
20.  $f(x) = -x^2 + 4$



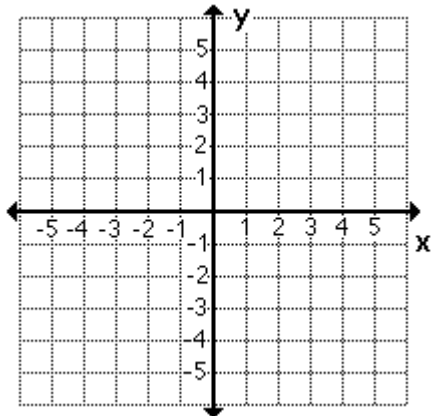
21.  $f(x) = 3$



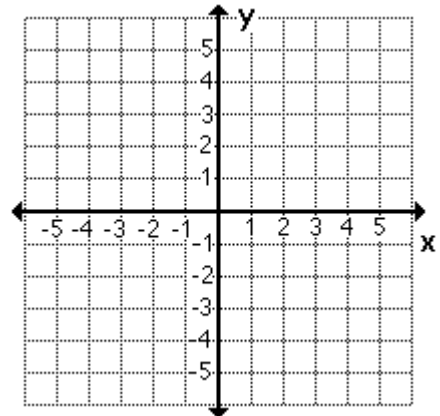
22.  $f(x) = (x-2)^3$



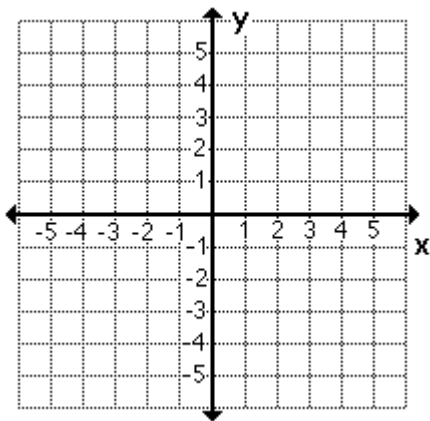
23.  $f(x) = \sqrt[3]{x-2} + 3$



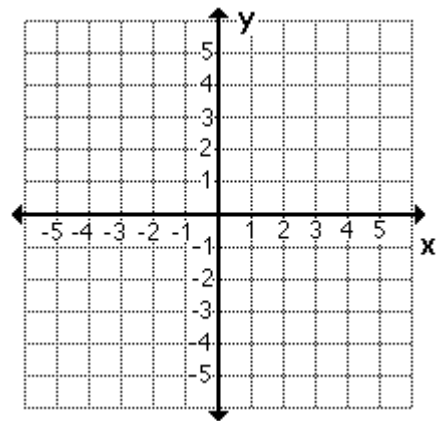
24.  $f(x) = -x + 3$



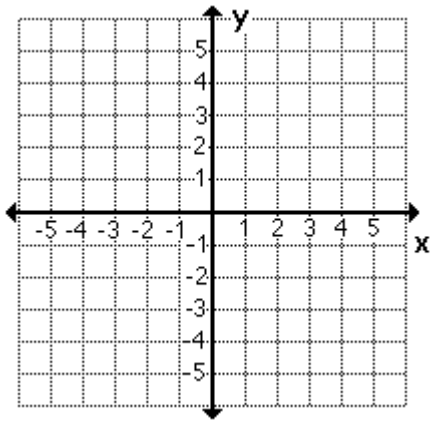
25.  $f(x) = -e^{x+3}$



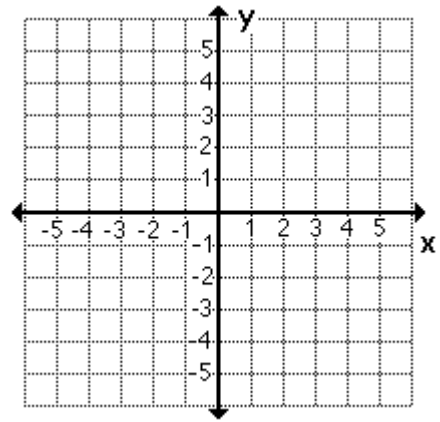
26.  $f(x) = \ln(x+3) + 2$



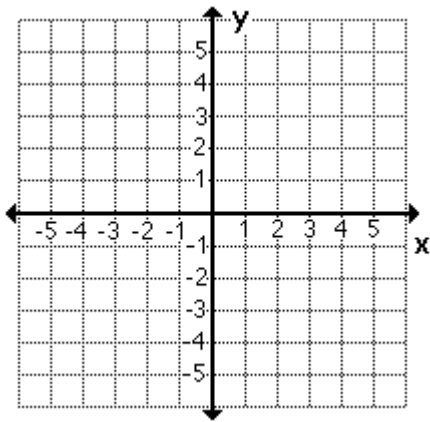
27.  $f(x) = -|x-2| - 1$



28.  $f(x) = \sqrt{x-3} + 2$



29.  $f(x) = 3^{-x}$



30.  $f(x) = -2^{x-1} - 2$

