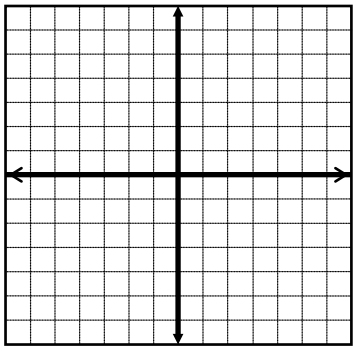
**MR15**

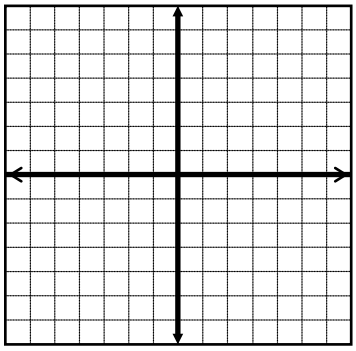
NAME _____ DATE _____ PER _____ SCORE _____

**Graphing Functions:** *Graph the following functions and find the indicated limit.*

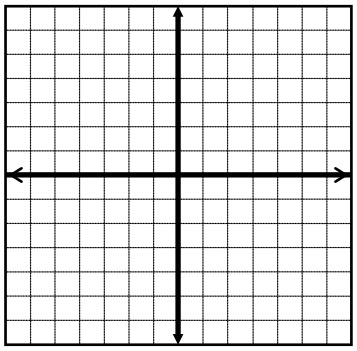
**1.** $f(x)=\dfrac{x-3}{x^2-2x-3}$, $\lim\limits_{x\to 3} f(x)$



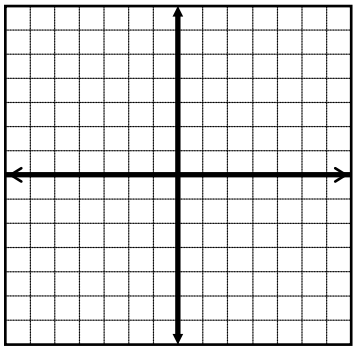
**2.** $f(x)=\dfrac{x^2-4}{x+2}$, $\lim\limits_{x\to -2} f(x)$



**3.** $f(x)=3^x$, $\lim\limits_{x\to 2} f(x)$



**4.** $f(x)=\begin{cases}3x & \text{if } x<1\\ x+1 & \text{if } x\geq 1,\end{cases}$ $\lim\limits_{x\to 1} f(x)$



**Writing Linear Equations (1.5):** *Write the equation of the line in slope-intercept form.*

**5.** Passing through $(-5,-3)$ and parallel to the line whose equation is $y=-\dfrac{1}{2}x+3$.

**6.** Passing through $(-5,-3)$ and perpendicular to the line whose equation is $y=-\dfrac{2}{3}x-4$.