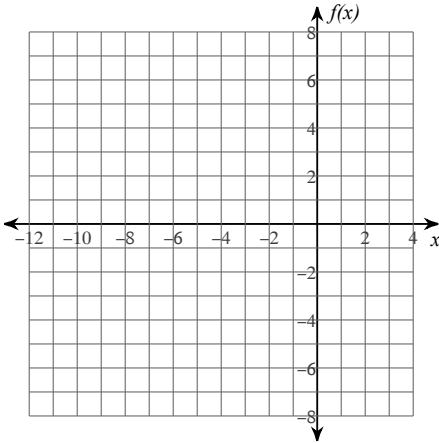


Assignment 3.5 - Evaluating Limits

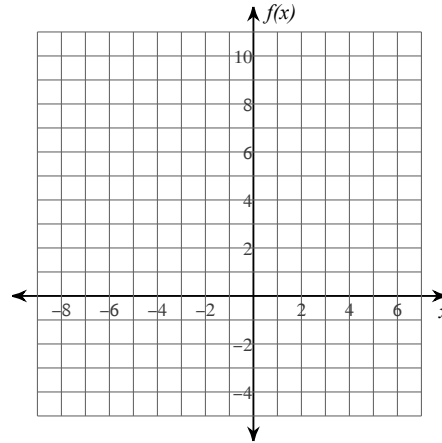
Date _____ Period _____

Evaluate each limit. You may use the provided graph to sketch the function.

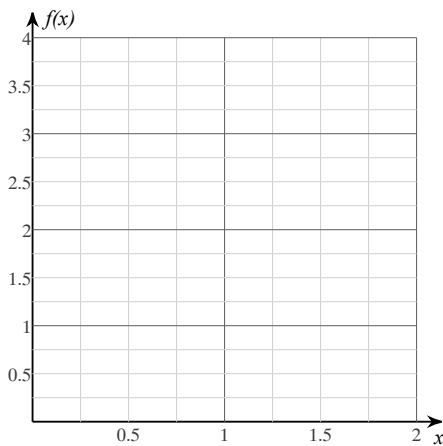
1) $\lim_{x \rightarrow -4} (x^2 + 4x)$



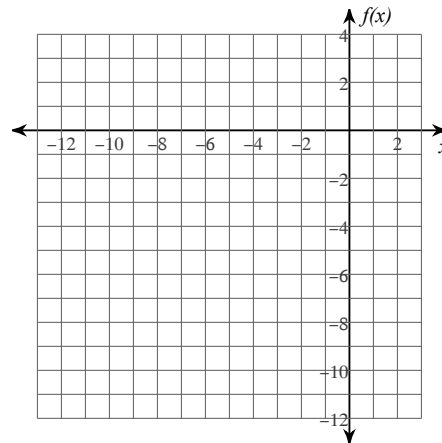
2) $\lim_{x \rightarrow -1} (-2x + 1)$



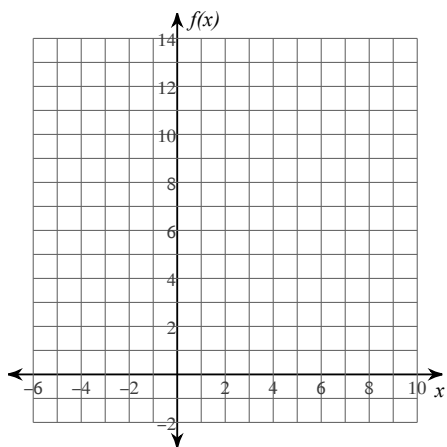
3) $\lim_{x \rightarrow 1} \frac{x-1}{\sqrt{x}-1}$



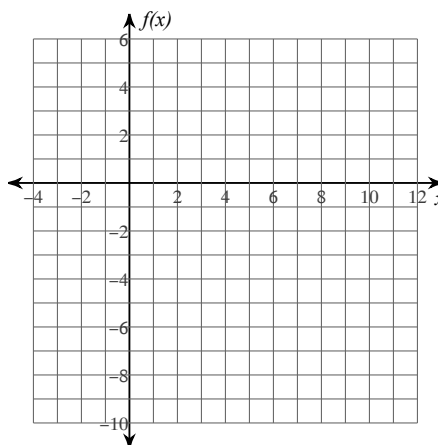
4) $\lim_{x \rightarrow -5} -4$



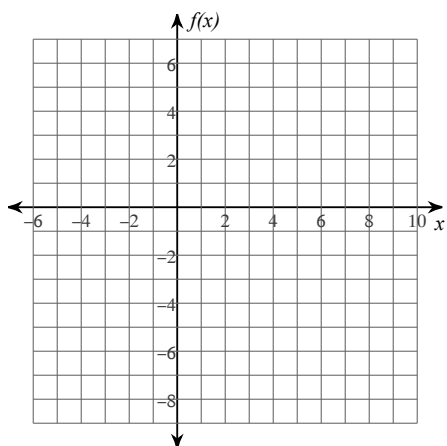
$$5) \lim_{x \rightarrow 2} \frac{x^2 + 2x - 8}{x - 2}$$



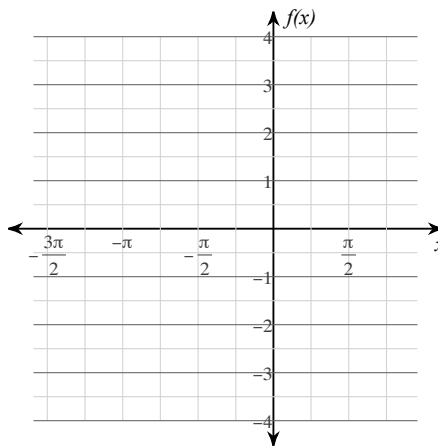
$$6) \lim_{x \rightarrow 4} -\sqrt{x + 4}$$



$$7) \lim_{x \rightarrow 2} \frac{x}{x - 4}$$



$$8) \lim_{x \rightarrow -\frac{\pi}{2}} \cos(x)$$



Evaluate each limit.

$$9) \lim_{x \rightarrow -3} \frac{x^2 + 3x}{x + 3}$$

$$10) \lim_{x \rightarrow 3} \frac{x}{\frac{1}{-3+x} + \frac{1}{3}}$$

$$11) \lim_{x \rightarrow -4} (2x + 3)$$

$$12) \lim_{x \rightarrow 3} (x^3 - 3x^2)$$

$$13) \lim_{x \rightarrow 25} \frac{x - 25}{\sqrt{x} - 5}$$

$$14) \lim_{x \rightarrow -4} \frac{x + 5}{x^2 + 7x + 10}$$

$$15) \lim_{x \rightarrow 0} 4$$

$$16) \lim_{x \rightarrow 3} -\frac{x^2 - 4x + 3}{x - 3}$$

$$17) \lim_{x \rightarrow -\frac{5\pi}{6}} -\sin(2x)$$

$$18) \lim_{x \rightarrow 4} \frac{x^2 - x - 12}{x - 4}$$

$$19) \lim_{x \rightarrow -5} \sqrt{-x + 3}$$

$$20) \lim_{x \rightarrow 2} \frac{x - 2}{x^2 - 6x + 8}$$