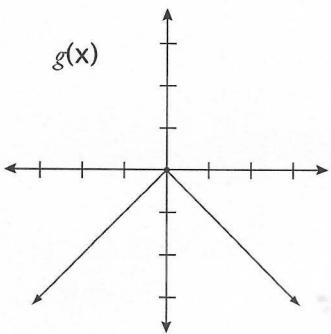


# 30A

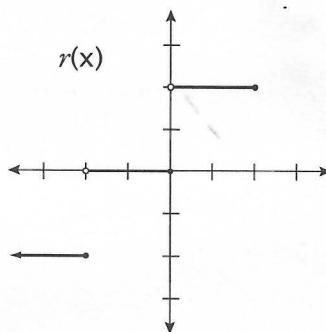
Evaluate the following limits from the given graphs.

1.



$$\lim_{x \rightarrow 0} g(x) = \underline{\hspace{2cm}}$$

2.



$$\lim_{x \rightarrow -2} r(x) = \underline{\hspace{2cm}}$$

$$\lim_{x \rightarrow -1} r(x) = \underline{\hspace{2cm}}$$

Evaluate the following limits by drawing a graph.

3.  $\lim_{x \rightarrow 1} r(x) |x - 2|$

4.  $\lim_{x \rightarrow \infty} \frac{1}{2x}$

Evaluate the following limits by factoring.

5.  $\lim_{x \rightarrow 2} \frac{x^2 + 3x - 10}{x - 2}$

6.  $\lim_{x \rightarrow -3} \frac{x^2 + x - 6}{x^2 + 2x - 3}$

## LESSON 30A

Evaluate the following limits using any appropriate method.

$$7. \lim_{x \rightarrow 1} 2x^2 - 6$$

$$8. \lim_{x \rightarrow \infty} x^2 + 2x$$

$$9. \lim_{x \rightarrow \pi/2} \frac{\cos x}{\sin^2 x}$$

$$10. \lim_{\theta \rightarrow 0^\circ} \frac{\cot^2 \theta - \csc^2 \theta}{\sec^2 \theta}$$

Hint: Simplify and then evaluate.