

**DATE:** \_\_\_\_\_

**p.61 in your textbook gives the Properties of Limits.**

**Show your steps in applying these properties to the following problems:**

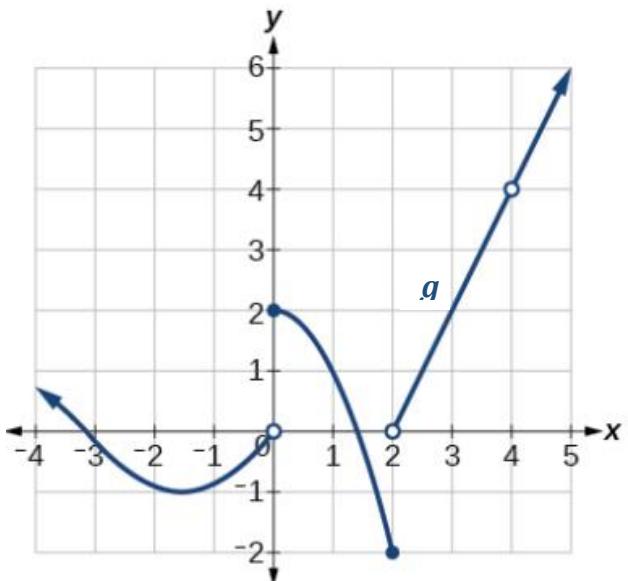
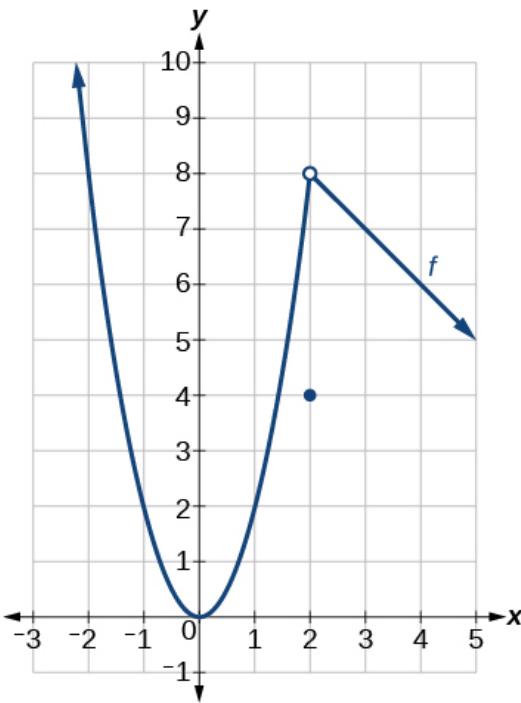
Evaluate each limit, if:  $\lim_{x \rightarrow 1} f(x) = 5$  and  $\lim_{x \rightarrow 1} g(x) = -2$ .

a)  $\lim_{x \rightarrow 1} (f(x) + g(x))$

b)  $\lim_{x \rightarrow 1} (2g(x) - 3f(x))$

c)  $\lim_{x \rightarrow 1} f(x)g(x)$

d)  $\lim_{x \rightarrow 1} \frac{f(x)+2}{f(x)g(x)}$



Given  $h(x) = f(x) + g(x)$ ,  $m(x) = f(g(x))$ , and  $w(x) = 3(g(x))^2 - f(x)$ , using the graphs above, find each limit.

a)  $\lim_{x \rightarrow 0^+} h(x)$

b)  $\lim_{x \rightarrow 2^-} m(x)$

c)  $\lim_{x \rightarrow 2^+} (m(x) + h(x))$

d)  $\lim_{x \rightarrow 4} w(x)$