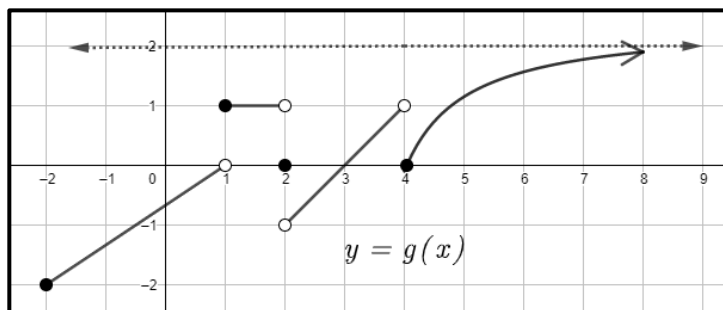
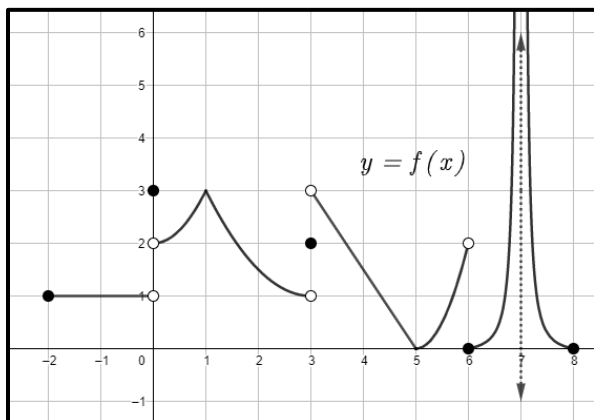


Worksheet: Advanced Limits



The graphs of  $f(x)$  and  $g(x)$  are above. Use the graphs to find the following limits, if it exists.

1.  $\lim_{x \rightarrow 1} f(f(x)) = 1$

2.  $\lim_{x \rightarrow 3} f(g(x))$  *DNE*

3.  $\lim_{x \rightarrow 3} [f(x) + f(x + 3)] = 3$

4.  $\lim_{x \rightarrow 3} [f(x)g(x)] = 0$

5.  $\lim_{x \rightarrow 7} g(f(x)) = 2$

6.  $\lim_{x \rightarrow 6} [f(x)f(x - 1)] = 0$

7.  $\lim_{x \rightarrow 2} [f(x + 1) + g(x)] = 2$

8.  $\lim_{x \rightarrow 1} [f(x + 5)g(x)] = 0$

9.  $\lim_{x \rightarrow 4} [f(x - 4) + g(x)] = 2$

10.  $\lim_{x \rightarrow 3} [f(x) + g(x + 1)]$  *DNE*