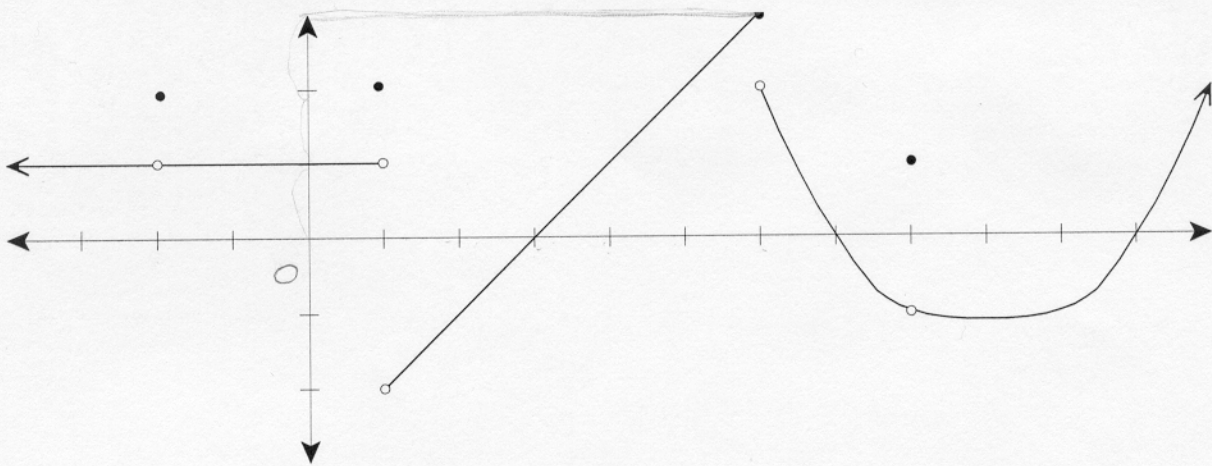


Each problem is worth 2 points. Clear and complete justification is required for full credit.



Use the graph of  $f(x)$  shown above to answer the following questions:

1. What is  $f(-2)$ ?  $f(-2) = \underline{2}$  The value of  $f(x)$  at  $x=2$  is 2.
2. What is  $\lim_{x \rightarrow -2} f(x)$ ?  $\lim_{x \rightarrow -2} f(x) = \underline{1}$ , because  $\lim_{x \rightarrow -2^-} f(x) = \lim_{x \rightarrow -2^+} f(x)$
3. What is  $\lim_{x \rightarrow 6^-} f(x)$ ?  $\lim_{x \rightarrow 6^-} f(x) = \underline{3}$  The limit of  $f(x)$  as  $x$  approaches 6 from the left is 3.
4. What is  $\lim_{x \rightarrow 6} f(x)$ ?  $\lim_{x \rightarrow 6} f(x) =$  doesn't exist, because  $\lim_{x \rightarrow 6^-} f(x) \neq \lim_{x \rightarrow 6^+} f(x)$
5. What is  $\lim_{x \rightarrow 6^+} f(x)$ ?  $\lim_{x \rightarrow 6^+} f(x) = \underline{2}$  The limit of  $f(x)$  as  $x$  approaches 6 from the right is 2.

Wonderful!