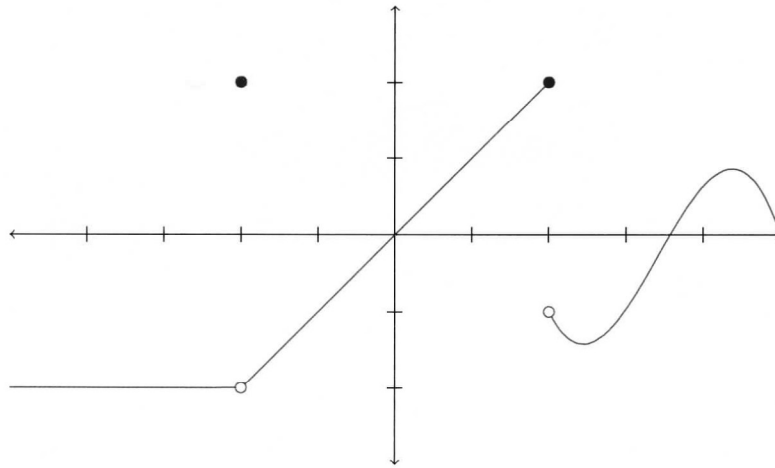


Each question is worth 5 points. Give good justification for full credit.



1. (a) What is  $\lim_{x \rightarrow 2^+} f(x)$ ?

(b) What is  $\lim_{x \rightarrow 2^-} f(x)$ ? -1

(c) What is  $\lim_{x \rightarrow 2} f(x)$ ? 2

(d) What is  $\lim_{x \rightarrow -2^+} f(x)$ ? DNE *Good*

(e) What is  $\lim_{x \rightarrow -2^-} f(x)$ ? -2

2. Evaluate the limit  $\lim_{x \rightarrow 5} \frac{x^2 - 6x + 5}{x - 5}$ .

$$= \lim_{x \rightarrow 5} \frac{\overbrace{(x^2 - 5x + -1x + 5)}^{x^2 - 6x + 5}}{\cancel{x - 5}} = \lim_{x \rightarrow 5} \frac{(x-5)(x-1)}{\cancel{x-5}}$$

$$= \lim_{x \rightarrow 5} x - 1 = 5 - 1 = \boxed{4}$$

Excellent!