

For a function to be *continuous* at a point  $x = a$ , the three following conditions must be met:

- $f(a)$  is defined
- $\lim_{x \rightarrow a} f(x)$  exists
- $f(a) = \lim_{x \rightarrow a} f(x)$

For each function shown below, describe the “point of interest” in its graph at  $x = 1$ . Determine if each function is continuous at  $x = 1$ . Explain your reasoning based on the three conditions listed in the definition above.

