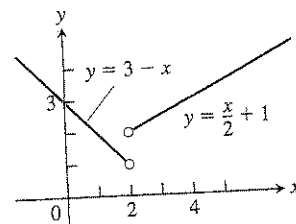


Fig. 1

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Chapter 2: Limits and Continuity

3. Let $f(x) = \begin{cases} 3 - x, & x < 2 \\ \frac{x}{2} + 1, & x > 2. \end{cases}$



- Find $\lim_{x \rightarrow 2^+} f(x)$ and $\lim_{x \rightarrow 2^-} f(x)$.
- Does $\lim_{x \rightarrow 2} f(x)$ exist? If so, what is it? If not, why not?
- Find $\lim_{x \rightarrow 4^-} f(x)$ and $\lim_{x \rightarrow 4^+} f(x)$.
- Does $\lim_{x \rightarrow 4} f(x)$ exist? If so, what is it? If not, why not?

Fig. 2

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