

- Standard 1.1: The graph of a function  $f$  can be seen at <https://www.geogebra.org/m/umxxz97b>. Based on this graph, what can you say about  $\lim_{x \rightarrow 1} f(x)$  and  $\lim_{x \rightarrow 2} f(x)$ ? Explain your answer.
- Standard 1.2: Suppose you know that  $\lim_{x \rightarrow 3} f(x) = 3$  and  $\lim_{x \rightarrow 3} g(x) = -2$ . Determine the following limits if possible.

$$\lim_{x \rightarrow 3} (f(x) - 4g(x)) \quad \lim_{x \rightarrow 3} (f(x)g(x)) \quad \lim_{x \rightarrow 3} f(g(x))$$

Justify your answer using properties of limits.

- Standard 1.3: Evaluate the following limits:

$$\lim_{x \rightarrow 3} \frac{x^2 - 5x + 6}{x^2 - 9} \quad \text{and} \quad \lim_{x \rightarrow 1} \frac{x - 1}{\sqrt{x} - 1}$$