1. A stone is dropped into a lake, creating a circular ripple that travels outward at a speed of 60 cm/s.

    a) Express the radius r of this circle as a function of the time.

    b) If A is the area of this circle as a function of the radius, find $A \circ r$.

2. Sketch the graph of an example of a function that satisfies all of the given conditions.

$$\lim_{x \to 0} f(x) = 1$$

$$\lim_{x \to 3^-} f(x) = -2$$

$$\lim_{x \to 3^+} f(x) = 2$$

$$f(0) = -1, \ f(3) = 1$$