(3 points) The graph of \( y = f(x) \) is shown below.

a. Find \( f(1) \)

b. Find \( \lim_{x \to 1^+} f(x) \)

c. Find \( \lim_{x \to 1^-} f(x) \)

d. Find \( \lim_{x \to 1^+} f(x) \)

e. Find \( \lim_{x \to -2} f(x) \)

f. Find \( \lim_{x \to 4^-} f(x) \)
(3 points) Solve the equation for $\theta$, where $\theta$ is in the interval $[0, 2\pi]$.

$2\sin^2 \theta + 7\sin \theta + 3 = 0$

(4 points) Given that $f(x) = \sqrt{3 - x}$ and $g(x) = \sqrt{x^2 - 16}$, define $f \circ g$ and find the domain of $f \circ g$. 