

(1) [5 points] Let $H(x) = \sec^4(\sqrt{x})$. Find functions f , g and h such that $H = f \circ g \circ h$.

(2) [5 points] Determine the limit $\lim_{x \rightarrow 5} \frac{x^2 - 3x - 10}{x - 5}$.

(3) [5 points] Determine the limit $\lim_{x \rightarrow 3} \frac{\sqrt{x+13} - 4}{x-3}$.