(1) [5] Let $f(x) = 2 + x$ and $g(x) = 4 - x^2$. Determine and simplify $\left(\dfrac{f}{g}\right)(x)$ and state the domain.

(2) [5] Let $H(x) = \sec^4(\sqrt{x})$. Find functions f, g and h so that $H = f \circ g \circ h$.

(3) [5] A stone is dropped into a lake, creating a circular ripple which travels outward at a speed of 50 cm/s. Determine $A(t)$, the area of the circle as a function of time t. (Hint: first determine $r(t)$, the radius of the circle as a function of time.)