Problem 3

In each of Problems 1 through 6, sketch the graph of the given function on the interval $t \geq 0$.

$$g(t) = f(t-\pi)u_\pi(t), \quad \text{where } f(t) = t^2$$

Solution

This function can be written in terms of the more familiar Heaviside function, $H(t)$, which is defined to be 1 if $t > 0$ and 0 if $t < 0$.

$$g(t) = (t-\pi)^2 H(t-\pi)$$