

University of Portland
School of Engineering

EE 261/Fall 2011

A. Inan

Class Homework # 6 – Step Functions

(Palindrome Day 11-11-11! Next time will occur 100 years later in 2111!)

Sketch the following step functions. In each sketch, provide the appropriate values.

(1) $f(t) = 4u(t) - 9$

(2) $g(t) = 4 + 9u(-t)$

(3) $h(t) = 5u(t - 3) - 9$

(4) $v(t) = 5u(4 - t) - 11$

$$(5) \quad i(t) = 3u(2t + 5) - 3u(5 - 2t)$$

$$(6) \quad m(t) = 5u(t + 3) - 13u(t - 2) + 8u(t - 7)$$

$$(7) \quad x(t) = 2u(t - 1) + 4u(t + 2) - 10u(t - 4) + 4u(t - 8)$$

$$(8) \quad y(t) = u(t + 2) - u(t - 2)$$

$$(9) \quad z(t) = 3u(4 - t) + 4u(t + 2) - 7u(t - 6) + 7u(t - 11)$$

$$(10) \quad q(t) = 5u(3 + t) - 8u(t + 1) - 3u(3 - t) + 8u(t - 5)$$