Solve the following two problems. Show all steps in your work.

(1) Find all real numbers r such that the following equation is true. Check your answers.
$$\log_5(r) - \log_5(7) = \log_5(r+3) - 2\log_5(7)$$

(2) Find the domain, range, and any asymptotes of the following function:
$$g(x) = 5 - \log_2(4 - x)$$