

AA1H, ASSIGNMENT 2, EXTRA INFORMATION

In Exercises 5, 6 and 7, the references are to the first edition of Lay. For the second edition, the translation is as follows

Q32,34 of page 12 becomes Q30,32 of page 12.

Q26 page 24 becomes Q21 page 25

Q31,30 page 24 becomes 31,33 page 26

Concerning Exercise 1. First note the convention on page 14 of the Notes about the domain of a function. When I say “for $g(x)$ on its domain”, I mean “for $g(x)$ when x is in the domain of g ”. (Of course, it does not make sense anyway to write $g(x)$ *unless* x is in the domain of g .)

Concerning Exercise 2. The HINT says that if $h(x)$ is the polynomial

$$(x - x_1) \dots (x - x_{i-1})(x - x_{i+1}) \dots (x - x_n) \left(= \prod_{\substack{j=1 \\ j \neq i}}^n (x - x_j) \right),$$

then

$$h(x_j) = 0 \text{ for } j \neq i.$$