

# Concrete Mathematics Class Note

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September 29, 2017

## 1 9.29

$$f(j) = \alpha_j, \text{ for } 1 \leq j < d \quad (1)$$

$$f(dn + j) = cf(n) + \beta_j, \text{ for } 0 \leq j < d \text{ and } n \geq 1 \quad (2)$$

get

$$f((b_m b_{m-1} \dots b_1 b_0)_d) = (\alpha_{b_m} \beta_{b_{m-1}} \beta_{b_{m-2}} \dots \beta_{b_1} \beta_{b_0})_c \quad (3)$$