

Review 10-3

1. Calculate the amortized cost of the i th TABLE-INSERT operation when $\alpha_{i-1} < 1/2$.

Case 1: $\alpha_{i-1} < 1/2$ and $\alpha_i < 1/2$.

$$\hat{c}_i = c_i + \Phi_i - \Phi_{i-1}$$

$$=$$

$$=$$

$$=$$

Case 2: $\alpha_{i-1} < 1/2$ but $\alpha_i \geq 1/2$.

$$\hat{c}_i = c_i + \Phi_i - \Phi_{i-1}$$

$$=$$

$$=$$

$$=$$

$$=$$

$$<$$

$$=$$