

# ASSIGNMENT

$S = ABCCDDAEFE$

$P = CDD$

Let  $A=1, B=2, C=3, D=4, E=5, F=6, G=7$

$P = CDD$

$m = 3$

$d = 10$

$q = 13$

$$\text{hash function} = \left( \sum_{i=0}^{m-1} v_i \cdot d^{m-1-i} \right) \bmod q$$

$$h("CDD") = (3 \cdot 10^2 + 4 \cdot 10^1 + 4 \cdot 10^0) \bmod 13$$

$$h("CDD") = 6$$

$$h("ABC") = (1 \cdot 10^2 + 2 \cdot 10^1 + 3 \cdot 10^0) \bmod 13$$

$$= 6$$

Comparing pattern character by character with text doesn't match so we move ahead

$$h("BCC") = (2 \cdot 10^2 + 3 \cdot 10^1 + 3 \cdot 10^0) \bmod 13$$

$$= 12$$

$$h("CDD") = (3 \cdot 10^2 + 4 \cdot 10^1 + 4 \cdot 10^0) \bmod 13$$

$$= 6$$