

# Z-scores

CMSC423

Name(s): UID(s):

The following string was constructed to solve an exact matching problem using the Z-algorithm (character \$ is assumed to not occur in the alphabet):

ABCDABD\$ABCABCDABABCDABDABDE

Answer the following questions:

- 1) What is the *pattern* in this case?
- 2) What is the *target* in this case?
- 3) Is there a match of the pattern in the target? If so, at which position in the target does it occur?
- 4a) (If you answered yes to #3) *Without explicitly calculating the Z-value for the matching position*, what do you expect the Z-value to be for the matching position?
- 4b) (If you answered no to #3) What do you expect the Z-values *for all* positions in the target to be?
- 5) Complete the calculation of Z-values for the string:

ABCDABD\$ABCABCDABABCDABDABDE  
x00020