

FRS HW2

Kouba

Fundamental Principle of Counting, Permutations

1.) How many permutations are there of the letters in the following words ?

a.) DACTYLION

b.) WELTER

c.) AVATAR

2.) How many ways can a President, Vice-President, Secretary, Treasurer, and Historian be selected from a group of 15 people ?

3.) How many subsets does each of the following sets have ?

a.) $\{1, 2, 3\}$

b.) $\{1, 2, 3, \dots, 20\}$