

Extra Review Questions

1. Using all the letters in the word PARALLELOGRAM,
 - a. How many different arrangements are possible? *(answer: 86 486 400)*
 - b. How many different arrangements have all the L's together? *(answer: 3 326 400)*
 - c. How many different arrangements have all the A's together? *(answer: 3 326 400)*
 - d. How many different arrangements have all the R's together? *(answer: 13 305 600)*
 - e. How many different arrangements have all the L's, all the A's, and all the R's together?
(answer: 40 320)
2. A school support team of six people is selected from a group of twelve volunteers consisting of three students, five teachers, and four parents. How many teams are possible if the team contains:
 - a. any combination of volunteers? *(answer: 924)*
 - b. two of each type of volunteer? *(answer: 180)*
 - c. at least three teachers? *(answer: 462)*
3. In how many ways can a group of 12 people be split into a team of 5, a team of 4, and a team of 3? *(answer: 27 720)*