Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_

**AFM Unit 5 Homework 1**

1. How many ways can 7 different books be stacked on a shelf?

2. A penny, a nickel, and a dime are tossed simultaneously. How many different ways can the coins land?

3. There are four roads from Erie to Mead, three from Mead to Titus, and four from Titus to Corry. How many different routes are there from Erie to Corry?

4. Regular license plates in Ohio have three letters followed by three digits. How many possible license plates are there?

5. There are 10 students in a class that meets in a room that has 12 chairs arranged in a row. How many ways is it possible for the students to be seated.

**Find the number of different ways the letters of the word *PAIRS* can be arranged given the following information.**

6. The first letter must be a *P*. 7. The first letter must be a vowel.

8. The first letter cannot be a vowel. 9. The letter *R* must be in the middle place.

**Truck license plate numbers in a certain state consist of five digits followed by two letters. Find the number of possible license plates for each situation.**

10. The letters *O* and *I* cannot be used. 11. The letters must be different. 12. The letter *O* cannot be used.

**Mr. Triebel, Ms. Schmucker, Mrs. Gulledge, Mrs. Cronin, Mr. Dybal, Mrs. Alligood, and Ms. Kinkaid get ready to present at a workshop. In how many ways can they present if….**

13. The male teachers must go first. 14. Exactly three women must go first.