

MATH 1473: Quiz #5*Sections 2.3 - 2.4*

Problem 1: A nickel, a dime, and a quarter are tossed. How many different outcomes are possible?

- a. 2
- b. 3
- c. 6
- d. 8
- e. None of these.

Problem 2: Telephone area codes are three digit numbers of the form XXX. The only restriction is that the first digit is neither 0 nor 1. How many three digit numbers of this type are possible?

- a. 128
- b. 800
- c. 900
- d. 1000
- e. None of these.

Problem 3: Each student at State College has a student ID number consisting of five digits (the first digit is nonzero, and digits may be repeated) followed by two of the letters A,B,C,D, and E (letters may not be repeated). How many different student numbers are possible?

- a. 540,000
- b. 1,800,000
- c. 2,000,000
- d. 2,250,000
- e. None of these.

Problem 4: Find the value of $\frac{9!}{5!4!}$.

- a. $\frac{9}{20}$
- b. 1
- c. 56
- d. 126
- e. None of these.

Problem 5: Find the value of ${}_{13}C_{10}$

- a. 130
- b. 286
- c. 1716
- d. 1,037,836,800
- e. None of these.

Problem 6: A softball league has 14 teams. If every team must play every other team once in the first round of league play, how many games must be scheduled?

- a. 7
- b. 91
- c. 182
- d. 2,184
- e. None of these.

Problem 7: How many five card poker hands containing exactly three aces are possible?

- a. 4,512
- b. 4,704
- c. 9,024
- d. 9,408
- e. None of these.