

Instructor: Prof. A. Suciu

Name: _____

MTH 1101 — QUIZ 6 — FALL 1996

Instructions: Put your name in the blanks above. Put your final answers to each question in the designated spaces on these test pages. Show your work—if there is not enough room, use the back of the page.

1) Compute:

2 points

a) $C(7, 4) + C(6, 2) =$

b) $\frac{C(1000, 600)}{C(1000, 400)} =$

2) A library wants to buy enough language dictionaries so a person will be able to look up a word in Greek, Latin, French, Spanish, German, Russian, or English and find its translation into any of the other languages. How many dictionaries does the library need if each of the dictionaries translates back and forth between two languages?

4 points

3) How many committees are possible if a committee consists of three of the people Daniel, Katherine, Kimberly, Michael, and Sophia?

4 points

4) How many committees are possible if a committee is obtained by choosing 2 of 10 faculty, and 3 of 20 students?

5 points

5) There are 5 rotten apples in a crate of 25 apples. How many samples of 4 of the 25 apples contain 6 points

a) Only good apples?

b) 3 good apples and 1 rotten apple?

6) Grumpy, Sleepy, Dopey, Doc, Happy, Sneezy and Bashful have thrown their caps into a bin. A young woman friend chooses two caps from the bin. Find the sample space for this experiment. 3 points

7) A penny is tossed 4 times. Find the sample space of this experiment, if: 6 points

a) We observe whether heads or tails came up.

b) We observe the difference between the number of heads and the number of tails.