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Date: 9/1/15
Time: 5:41 AM

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Course: MAT1301-14A-1A16-S2
Book: Pirnot: Mathematics All Around,
5e

Assignment: Unit V Homework

1. List all the ways of selecting two different members from S. The order in which the members are selected is not important. For example, AB is the same selection as BA. *combination*

$S = \{K, L, M, N, P\}$ $n = 5$

Identify the problem solving method that should be used. Choose the correct answer below.

- ☐ A. Look for Patterns Strategy
☒ B. Be Systematic Strategy *12.1 systematic counting*
☐ C. Three-Way Principle
☐ D. Draw Pictures Strategy

Identify the list of all the ways to select two different members from S. Choose the correct answer below.

- ☐ A. KL, KM, KN, KP, LK, LM, LN, LP, MK, ML, MN, MP, NK, NL, NM, NP
☒ B. KL, KM, KN, KP, LM, LN, LP, MN, MP, NP
☐ C. KK, KL, KM, KN, KP, LL, LM, LN, LP, MM, MN, MP, NN, NP, PP
☐ D. KM, KN, KP, LM, LN, LP, MN, MP

2. List all the ways to select two members from S with repetition. The order in which the members are selected is not important. For example, DD is allowed and BA is the same selection as AB. *combination*

$S = \{F, G, H, J, K\}$ $n = 5$

12.3 Pg 9 $C(P, r) = \frac{n!}{(r!(n-r)!)} = 10$

Identify the list of all the ways to select two members from S, allowing for repetition. Choose the correct answer below.

- ☐ A. FF, FG, FH, FJ, FK, GF, GG, GH, GJ, GK, HF, HG, HH, HJ, HK, JF, JG, JH, JJ, JK
☐ B. FH, FJ, FK, GH, GJ, GK, HJ, HK
☐ C. FF, FG, FH, FJ, FK, GH, GJ, GK, HJ, HK, JK
☐ D. FF, FG, FH, FJ, FK, GG, GH, GJ, GK, HH, HJ, HK, JJ, JK, KK

*With repetition is
combination + n*