

MA 162 Recitation Worksheet Thursday October 30

1. A coin is tossed four times, and the sequence of heads and tails is recorded.
 - (a) Use the generalized multiplication principle to determine the number of outcomes of this activity.
 - (b) Exhibit all the sequences by means of a tree diagram.
2. Computers manufactured by a certain company have a serial number consisting of a letter of the alphabet followed by a four-digit number. If all the serial numbers of this have been used, how many computers have already been manufactured?
3. Evaluate the given expressions.
 - (a) $C(n, n - 2)$
 - (b) $P(n, n - 2)$
 - (c) $P(n, 1)$
 - (d) $C(2015, 2014)$
4. Seven people arrive at the ticket counter of Starlite Cinema at the same time. In how many ways can they line up to purchase their ticket?
5. In how many ways can four married couples attending a concert be seated in a row of eight seats if:
 - (a) There is no restrictions?
 - (b) Each married couple is seated together?
 - (c) The member of each sex are seated together?
6. A student taking an examination is required to answer exactly 10 out of 15 questions.
 - (a) In how many ways can the 10 questions be selected?
 - (b) In how many ways can the 10 questions be selected if exactly 2 of the first 3 questions must be answered?