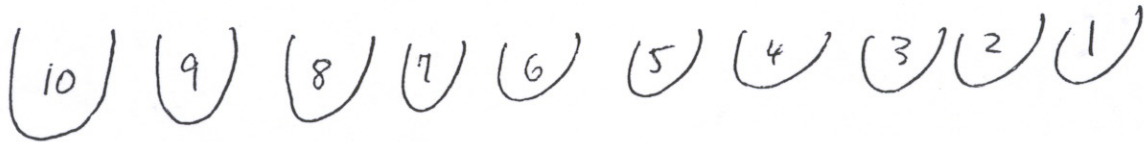


9. (9 points) A group of 8 people attend the movies together. How many ways can they be seated in a row if two of the people (John and Mary) insist on sitting next to one another?

Think of arrangements 7 human units JM and the other 6  
 or MJ and the other 6

$2 \cdot 7!$

10. How many 5-tuples are there of the form  $(h, i, j, k, m)$  with  $1 \leq m \leq k \leq j \leq i \leq h \leq 10$ ?



Each such 5-tuple corresponds to a way order with 5 picks and 9 switches

$\binom{14}{5}$