Relay Problem # 1

Start →



Destination ←
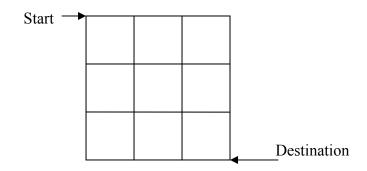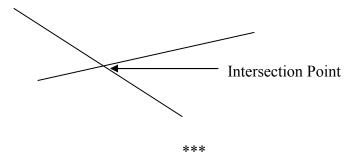
The 3x3 square grid above represents a bird's-eye view of a section of street blocks in New York City. Suppose that I were to start at the upper left hand corner and walk along the street blocks to the lower right hand corner **only** to the right or downwards. In how many different ways can I reach my destination?

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Relay Problem # 2

Define "T" to be the answer that was found in Relay Problem # 1. Suppose I draw "T/2" number of straight lines in a plane. What is the maximum number of intersection points between these lines?



Intersection Point

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Relay Problem # 3

Define "X" to be the answer that was found in Relay Problem # 2. Determine the number of the consecutive end digits of zero of the number "*X!*", where "*X!*" denotes "X factorial", which is equal to the expression "*X * (X-1) * (X-2) … * 2 * 1*".

*Ex.) 456000 is a number with three consecutive end digits of zero.