There is a region with small towns connected together by a network of roads. In each town is a traffic light and traffic going through a town takes one of two routes out of the town, depending on the traffic light.

If a car enters town A, it moves to B or C, then to D, E, or F, and proceeds through the network reaching P. The car leaves one town going to either of two destination towns according to probabilities in the following table:

	A	В	С	D	Е	F	G	Н	Ι	J	K	L	Μ	N	О	Р
A		.1	.9													
В				.2	.8											
С					.3	.7										
D							.1	.9								
Е								.4	.6							
F									.2	.8						
G											1.					
Н											.3	.7				
I												.5	.5			
J													1.			
K														1.		
1 L														.4	.6	
M															1.0	
N																1.0
О																1.0
Р																

The time to drive the roads between towns in minutes is given in the table below:

	A	В	С	D	Е	F	G	Н	Ι	J	K	L	Μ	N	О	Р
A		5	6													
В				4	7											
С					4	6										
D							4	6								
E								6	4							
F									3	7						
G											4					
Н											4	8				
I												6	4			
J													5			
K														4		
L														5	6	
M															5	
N																5
О																5
Р																

Write a program to simulate traffic flow with 10,000 cars. Calculate the average transit time from A to P and calculate the standard deviation.

Run this program 10 times and compute the average transit time for 100,000 cars and the standard deviation.

Compare the 10 runs of 10,000 with the one run of 100,000.