Pilot Information for Students

Ruth

Flight Number	Origination City	Departure Time	Destination City	Arrival Time	Flight Length				
767	Phoenix	8:00a.m.	Seattle	9:45a.m.	2.75 hours				
268	Seattle	10:30a.m.	Los Angeles	1:15p.m.	2.75 hours				
465	Los Angeles	1:45p.m.	Seattle	4:15p.m.	2.5 hours				
Layover In Seattle									

Leg 1: What is the likelihood that Ruth will depart Phoenix in time to fly to Los Angeles? (Be sure to explain your calculations.)

a. What is the likelihood that Ruth will have a delayed departure from Phoenix?

b. If there is a delay in Phoenix, what is the likelihood that it will be more than 45 minutes?

c. What is the likelihood that Ruth will have a delay of more than 45 minutes?

d. What is the likelihood that Ruth will depart Phoenix in time to fly to Los Angeles?

Leg 2: What is the likelihood that Ruth will depart Seattle in time to fly back to Seattle?

Fill in the table below with the results of your computations.

Ruth

Flight Number	Origination City	Departure Time	Destination City	Arrival Time	Flight Length	Likelihood of On- Time Departure	Accumulated Likelihood
767	Phoenix	8:00a.m.	Seattle	9:45a.m.	2.75 hours		
268	Seattle	10:30a.m.	Los Angeles	1:15p.m.	2.75 hours		
465	Los Angeles	1:45p.m.	Seattle	4:15p.m.	2.5 hours		
Layover In Seattle							

If a pilot has less than a 75% chance of arriving in time for the next flight, a standby pilot must be ready to fly. Will a delayed arrival or departure for Ruth reach a point at which a standby pilot must be scheduled?

A standby pilot is called when the accumulated (compound) probability of arriving in time drops below 65%. Will the accumulated chance of a delayed arrival or departure for Ruth reach a point at which a standby pilot must be scheduled? If so, for which flight do you need a standby pilot?