

Ruth

Flight Number	Origination City	Departure Time	Destination City	Arrival Time	Flight Length
767	Phoenix	8:00 a.m.	Seattle	9:45 a.m.	2.75 hours
268	Seattle	10:30 a.m.	Los Angeles	1:15 p.m.	2.75 hours
465	Los Angeles	1:45 p.m.	Seattle	4:15 p.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 flight 767 is delayed, what is the likelihood that the delay will be more than 45 minutes?

c. What is the likelihood that flight 767 will be delayed AND the delay will be more that 45 minutes?	n
d. What is the likelihood that Ruth will arrive in Seattle 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?	

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

Ruth

Flight No.	Orig. City	Dep. Time	Dest. City	Arr. Time	Flight Length	Likelihood of on-time Departure	Accumulated Likelihood
767	Phoenix	8:00 a.m.	Seattle	9:45 a.m.	2.75 hrs		
268	Seattle	10:30 a.m.	Los Angeles	1:15 p.m.	2.75 hrs		
465	Los Angeles	1:45 p.m.	Seattle	4:15 p.m.	2.5 hrs		

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?

Chuck

Flight Number	Origination City	Departure Time	Destination City	Arrival Time	Flight Length
483	Seattle	7:00 a.m.	San Francisco	9:00 a.m.	2 hours
376	San Francisco	10:15 a.m.	Phoenix	1:15 p.m.	2 hours
812	Phoenix	1:45 p.m.	San Francisco	2:45 p.m.	2 hours
421	Los Angeles	3:45 p.m.	Seattle	5:45 p.m.	2 hours

Leg 1

What is the likelihood that Chuck will depart Seattle in time to fly to Phoenix? (Be sure to explain your calculations.)

Leg 2 What is the likelihood that Chuck will depart San Francisco in time to fly back to San Francisco?
Leg 3 What is the likelihood that Chuck will depart Phoenix in time to fly to Seattle?

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

Chuck

Flight No.	Orig. City	Dep. Time	Dest. City	Arr. Time	Flight Length	Likelihood of on-time Departure	Accumulated Likelihood
483	Seattle	7:00 a.m.	San Francisco	9:00 a.m.	2 hrs		
376	San Francisco	10:15 a.m.	Phoenix	1:15 p.m.	2 hrs		
812	Phoenix	1:45 p.m.	San Francisco	2:45 p.m.	2 hrs		
421	San Francisco	3:45 p.m.	Seattle	5:45 p.m.	2 hrs		

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 Chuck 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 Chuck reach a point at which a standby pilot must be scheduled? If so, for which flight do you need a standby pilot?