**2008 Question 1: Flight List (9 points)**

| Total Scored out of 9 |  |
| --- | --- |

**Part A: getDuration (4 points)**

handle empty case

+1/2 check if flights is empty

+1/2 return 0 if empty

access start time

+1/2 access flights.get(0)

+1/2 correctly call getDepartureTime on a flight

access end time

+1/2 access flights.get(flights.size()-1)

+1/2 correctly call getArrivalTime on a flight

calculate and return duration

+1/2 call minutesUntil using Time objects

+1/2 return correct duration (using minutesUntil)

**Part B: getShortestLayover (5 points)**

handle case with 0 or 1 flight

+1/2 check if flights.size() < 2

+1/2 return -1 in that case

traverse flights

+1/2 correctly access an element of flights (in context of loop)

+1/2 access all elements of flights (lose this if index out-of-bounds)

find shortest layover (in context of loop)

+1 get layover time between successive flights (using minutesUntil)

+1/2 compare layover time with some previous layover

+1 correctly identify shortest layover

+1/2 return shortest layover