```
/* Input Canada and Cuba raw data */
DATA Canada_2010;
INPUT Age$ Pop:comma9. Death:comma7.;
DATALINES;
0-19 7,720,330 3,513
20-39 8,294,465 6,105
40-59 9,672,975 28,504
60-79 4,757,805 82,887
80+ 1,167,315 107,057
;
DATA Cuba_2010;
INPUT Age$ Pop:comma9. Death:comma6.;
DATALINES;
0-19 2,832,863 1,337
20-39 3,339,537 2,830
40-59 3,178,253 12,641
60-79 1,557,773 34,977
80+ 328,016 34,632
;
RUN;

/* Part 1 */
/* Indirect Standardization: Calculate overall SMR for Canada using Cuba as reference */
PROC STDRATE DATA=Canada_2010 REFDATA=Cuba_2010 METHOD=indirect STAT=rate(mult=100000) PLOTS=none;
POPULATION EVENT=Death TOTAL=Pop;
REFERENCE EVENT=Death TOTAL=Pop;
STRATA Age;
RUN;

/* Part 2 */
/* Direct Standardization: Calculate DAR (Crude Rate per 100,000 persons) */
/* Add new columns with country name*/
DATA Canada_2010b;
SET Canada_2010;
Country = 'Canada';
RUN;
DATA Cuba_2010b;
SET Cuba_2010;
Country = 'Cuba';
RUN;
/* Merge the Canada and Cuba datasets */
DATA TwoNations;
SET Canada_2010b Cuba_2010b;
RUN;

/* Input Reference Population */
/* This reference population is an average of the sum of population from an age range divided by total population */
/*
(pop value of 0-19 for Canada) + (pop value of 0-19 for Cuba)
    divided by (Total pop value of 0-19 for Canada+Cuba) for all 5 Age ranges
    obtained values were '0-19'=24.6, '20-39'=27.2, '40-59'=0.30, '60-79'=14.7, '80+'=3.5
*/
DATA ModifyRef;
INPUT Age$ Pop;
DATALINES;
0-19 25
20-39 27
40-59 30
60-79 15
80+ 3
;

PROC STDRATE DATA=TwoNations REFDATA=ModifyRef METHOD=direct STAT=rate(mult=100000)
PLOTS(only)=(dist rate);
POPULATION GROUP=Country EVENT=Death TOTAL=Pop;
REFERENCE TOTAL=Pop;
STRATA Age / stats;
RUN;
```