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Roll no : A053	Set: Set D

Q1)

```
data heart;
  set sashelp.heart;
run;
proc means data=heart mean std;
  var AgeAtStart;
run;

data HighRisk;
  set heart;
  if Cholesterol > 240;
run;
```

The MEANS Procedure

Analysis Variable : AgeAtStart Age at Start	
Mean	Std Dev
44.0687272	8.5749541

Q2)

```
data cars;
  set sashelp.cars;
run;


proc print data=cars;
run;
data FuelEfficient;
  set cars;
  if City_Mileage > 25 and Highway_Mileage > 30;
run;
proc print data=FuelEfficient (obs=5);
run;
```

	Make	Model	Type	Origin	DriveTrain	MSRP	Invoice	EngineSize	Cylinders	Horsepower	MPG_City	MPG_Highway	Weight	Wheelbas
1	Acura	MDX	SUV	Asia	All	$36,945	$33,337	3.5	6	265	17	23	4451	10
2	Acura	RSX Type S 2dr	Sedan	Asia	Front	$23,820	$21,761	2.0	4	200	24	31	2778	10
3	Acura	TSX 4dr	Sedan	Asia	Front	$26,990	$24,647	2.4	4	200	22	29	3230	10
4	Acura	TL 4dr	Sedan	Asia	Front	$33,195	$30,299	3.2	6	270	20	28	3575	10
5	Acura	3.5 RL 4dr	Sedan	Asia	Front	$43,755	$39,014	3.5	6	225	18	24	3880	11
6	Acura	3.5 RL w/Navigation 4dr	Sedan	Asia	Front	$46,100	$41,100	3.5	6	225	18	24	3893	11
7	Acura	NSX coupe 2dr manual S	Sports	Asia	Rear	$89,765	$79,978	3.2	6	290	17	24	3153	10
8	Audi	A4 1.8T 4dr	Sedan	Europe	Front	$25,940	$23,508	1.8	4	170	22	31	3252	10
9	Audi	A41.8T convertible 2dr	Sedan	Europe	Front	$35,940	$32,506	1.8	4	170	23	30	3638	10
10	Audi	A4 3.0 4dr	Sedan	Europe	Front	$31,840	$28,846	3.0	6	220	20	28	3462	10
11	Audi	A4 3.0 Quattro 4dr manual	Sedan	Europe	All	$33,430	$30,366	3.0	6	220	17	26	3583	10
12	Audi	A4 3.0 Quattro 4dr auto	Sedan	Europe	All	$34,480	$31,388	3.0	6	220	18	25	3627	10
13	Audi	A6 3.0 4dr	Sedan	Europe	Front	$36,640	$33,129	3.0	6	220	20	27	3561	10
14	Audi	A6 3.0 Quattro 4dr	Sedan	Europe	All	$39,640	$35,992	3.0	6	220	18	25	3880	10
15	Audi	A4 3.0	Sedan	Europe	Front	$42,490	$38,325	3.0	6	220	20	27	3814	10

Q3)

```
data Products;
  input ProductID ProductName $ Price;
  datalines;
1 Product1 801
2 Product2 10
3 Product3 910
4 Product4 10
5 Product5 951
;
data Products;
  set Products;
  if Price > 100 then ExpensiveProduct = 1;
  else ExpensiveProduct = 0;
run;
proc print data=Products;
run;
```

Obs	ProductID	ProductName	Price	ExpensiveProduct
1	1	Product1	801	1
2	2	Product2	10	0
3	3	Product3	910	1
4	4	Product4	10	0
5	5	Product5	951	1

Q4)

Used bp_status

```
data heart;
  set sashelp.heart;
run;
data HeartPatients;
  set heart;
  if findw(BP_Status, 'Normal') then output;
run;

proc print data=HeartPatients;
run;
```

AgeCHDdiag	Sex	AgeAtStart	Height	Weight	Diastolic	Systolic	MRW	Smoking	AgeAtDeath	Cholesterol	Chol_Status	BP_Status	Weight_Status	Sm
.	Female	29	62.50	140	78	124	121	0	55	.		Normal	Overweight	No
.	Female	39	65.75	158	80	128	123	0	.	242	High	Normal	Overweight	No
.	Female	36	64.75	136	80	112	110	15	.	196	Desirable	Normal	Overweight	Mo
.	Male	53	65.50	130	80	114	99	0	77	276	High	Normal	Normal	No
.	Male	35	71.00	194	68	132	124	0	.	211	Borderline	Normal	Overweight	No
.	Male	52	62.50	129	78	124	106	5	82	284	High	Normal	Normal	Lig
.	Male	39	66.25	179	76	128	133	30	.	225	Borderline	Normal	Overweight	Ver 25)
79	Male	57	67.25	165	76	128	118	15	.	.		Normal	Overweight	Mo
.	Female	37	64.50	134	76	120	108	10	.	196	Desirable	Normal	Normal	Mo
.	Male	40	66.25	151	72	132	112	30	.	192	Desirable	Normal	Overweight	Ver 25)
56	Male	56	67.25	122	72	120	87	15	72	194	Desirable	Normal	Underweight	Mo
.	Female	45	64.00	147	74	120	119	5	.	209	Borderline	Normal	Overweight	Lig
.	Female	36	63.75	122	84	132	102	0	.	184	Desirable	Normal	Normal	No
.	Female	35	66.00	123	76	132	93	0	.	150	Desirable	Normal	Normal	No
.	Male	42	72.25	182	78	136	113	0	.	221	Borderline	Normal	Overweight	No
68	Male	40	70.00	189	78	124	124	0	.	319	High	Normal	Overweight	No
68	Male	40	70.00	195	76	132	128	20	.	205	Borderline	Normal	Overweight	He

Q5)

```
data class;
  set sashelp.class;
run;

proc print data=class;
title 'Original Dataset';
run;

proc sort data=class out=class_sorted nodupkey;
  by _all_;
run;

proc print data=class_sorted;
  title 'Dataset with Duplicates Removed (Based on All Variables)';
run;

proc sort data=class out=class_sorted nodupkey;
  by Name Age;
run;

proc print data=class_sorted;
  title 'Dataset with Duplicates Removed (Based on Name and Age)';
run;
```

Original Dataset

Obs	Name	Sex	Age	Height	Weight
1	Alfred	M	14	69.0	112.5
2	Alice	F	13	56.5	84.0
3	Barbara	F	13	65.3	98.0
4	Carol	F	14	62.8	102.5
5	Henry	M	14	63.5	102.5
6	James	M	12	57.3	83.0
7	Jane	F	12	59.8	84.5
8	Janet	F	15	62.5	112.5
9	Jeffrey	M	13	62.5	84.0
10	John	M	12	59.0	99.5
11	Joyce	F	11	51.3	50.5
12	Judy	F	14	64.3	90.0
13	Louise	F	12	56.3	77.0
14	Mary	F	15	66.5	112.0
15	Philip	M	16	72.0	150.0
16	Robert	M	12	64.8	128.0
17	Ronald	M	15	67.0	133.0
18	Thomas	M	11	57.5	85.0
19	William	M	15	66.5	112.0