data stat482;

input ID$ HW1 HW2 EXAM1 HW3;

cards;

144 57 95 52 94

898 93 95 95 95

1294 98 100 100 100

1401 98 100 90 99

1460 86 98 85 98

1510 97 100 92 91

1618 98 0 59 100

1620 82 100 56 100

1700 100 100 76 94

2237 41 10 55 95

2694 90 100 61 88

2977 97 100 90 99

3345 29 82 68 0

3357 96 100 68 98

3534 90 90 73 95

3593 100 100 100 100

3640 92 95 54 93

4003 97 98 66 99

4276 87 100 85 97

4336 95 100 83 97

4360 92 100 100 97

4432 97 100 90 100

5393 100 100 78 99

5519 97 100 100 100

6513 100 100 80 98

7083 100 100 83 100

7143 100 100 93 97

7174 99 100 95 100

7521 95 100 81 95

7566 100 94 50 84

7619 91 100 76 100

7964 97 100 83 97

9083 95 100 85 100

9197 98 88 70 91

9267 91 90 29 95

9592 79 100 35 100

9603 92 100 90 97

;

data stat475;

input ID$ HW1 HW2 EXAM;

cards;

529 98 89 95

646 100 97 100

880 90 89 93

1618 98 95 85

2787 98 100 95

3088 95 100 95

3181 98 100 100

3300 98 100 97

3593 98 97 100

3640 98 97 97

4184 100 100 97

4336 95 100 100

4441 98 100 100

4691 100 100 100

4767 98 97 99

4822 96 95 97

4938 100 100 100

5352 98 100 100

5393 98 100 98

6129 100 95 97

6513 98 100 100

6542 100 100 98

7083 100 100 100

7398 100 97 97

8377 95 89 80

9044 90 100 97

9267 95 97 97

;

/\*(a) List all students who are in both classes: their id's

and all their grades \*/

proc sql;

create table both as

select a.id, a.hw1 as hw1\_stat482, a.hw2 as hw2\_stat482,

a.exam1 as exam\_stat482, a.hw3 as hw3\_stat482, b.hw1 as

hw1\_stat475, b.hw2 as hw2\_stat475, b.exam as exam\_stat475

from stat482 as a, stat475 as b

where a.id=b.id;

select \* from both;

quit;

/\* (b) Find the best student in either class. Assume that in

STAT 482, hws are worth 60pts, exams are worth 100 points;

in STAT 475, hws are worth 25 points, and exams are worth

100 points, and the given scores are percent of maximum possible.\*/

proc sql;

create table stat482 as

select id,((hw1+hw2+hw3)/100\*60+exam1)/(60\*3+100)\*100 as total

from stat482;

select \* from stat482;

quit;

proc sql;

create table stat475 as

select id,((hw1+hw2)/100\*25+exam)/(25\*2+100)\*100 as total

from stat475;

select \* from stat475;

quit;

proc sql;

select id, total, 'stat482' as course

from stat482

having total=max(total)

union

select id, total, 'stat475' as course

from stat475

having total=max(total);

quit;

/\* (c) Combine all proc sql's in part (b) into one proc sql

statement \*/

proc sql;

select id, ((hw1+hw2+hw3)/100\*60+exam1)/(60\*3+100)\*100 as

total, 'stat482' as course

from stat482

having total=max(total)

union

select id, ((hw1+hw2)/100\*25+exam)/(25\*2+100)\*100 as total,

'stat475' as course

from stat475

having total=max(total);

quit;