**data** old;

input cage sex grp week wt;

x1=**0**; if grp=**2** then x1=**1**;

x2=**0**; if grp=**3** then x2=**1**;

lwt=log(wt);

sex1=sex\*x1;

sex2=sex\*x2;

sex12=sex\*x1\*x2;

cards;

1 1 1 1 60.8

1 1 1 2 62.4

1 1 1 3 75.8

2 1 1 1 68.9

2 1 1 2 77.3

2 1 1 3 77.2

3 0 1 1 92.5

3 0 1 2 95.9

3 0 1 3 97.6

3 1 1 1 73.9

3 1 1 2 78.4

3 1 1 3 73

4 0 1 1 83.2

4 0 1 2 108.7

4 0 1 3 90.7

4 1 1 1 68.1

4 1 1 2 94.3

4 1 1 3 73.8

5 1 2 1 83.4

5 1 2 2 82.1

5 1 2 3 74.5

6 0 2 1 88.9

6 0 2 2 89.6

6 0 2 3 90.4

6 1 2 1 80.7

6 1 2 2 85.6

6 1 2 3 92.3

7 0 2 1 77.6

7 0 2 2 99.9

7 0 2 3 99.9

7 1 2 1 63

7 1 2 2 87.4

7 1 2 3 82

8 0 2 1 92.8

8 0 2 2 104.9

8 0 2 3 92.5

8 1 2 1 67.7

8 1 2 2 71.4

8 1 2 3 66.6

9 0 3 1 91

9 0 3 2 98.1

9 0 3 3 99.8

9 1 3 1 63

9 1 3 2 71.5

9 1 3 3 73.1

10 0 3 1 84.9

10 0 3 2 92.8

10 0 3 3 91.2

10 1 3 1 63.4

10 1 3 2 71

10 1 3 3 69.7

11 0 3 1 90.6

11 0 3 2 83.1

11 0 3 3 89

11 1 3 1 79.9

11 1 3 2 89.7

11 1 3 3 91.3

12 0 3 1 68.7

12 0 3 2 69.5

12 0 3 3 80.7

12 1 3 1 110.7

12 1 3 2 102.2

12 1 3 3 108.9

;;;;

**proc** **reg**;

model lwt=sex x1 x2 sex1 sex2 sex12 week/selection=forward;

**proc** **reg**;

model wt=sex x1 x2 sex1 sex2 sex12 week/selection=forward;

**run**;