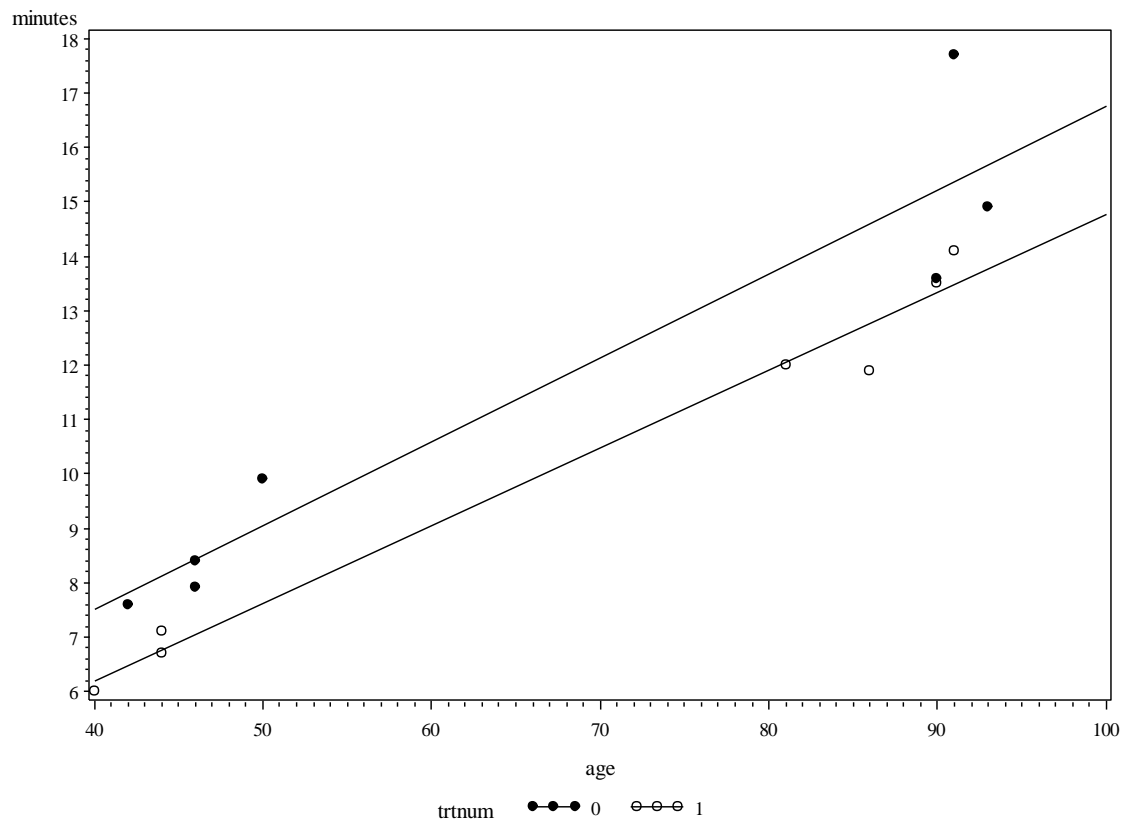```
ods html close;
ods html;
ods rtf file='c:\courses\courses\ma416\qual_int2.rtf';
options nocenter;
data new;
      input subject trt $ center minutes age;
      if trt='N' then trtnum=1; else if trt='P' then trtnum=0;
      trtnumage=trtnum*age;
cards;
1   N 1   6.7 44
2   N 1   7.1 44
4   N 1   6.0 40
5   N 2 11.9 86
6   N 2 14.1 91
7   N 2 12.0 81
8   N 2 13.5 90
17 P 1   7.6 42
18 P 1   9.9 50
19 P 1   7.9 46
20 P 1   8.4 46
21 P 2 17.7 91
22 P 2 13.6 90
24 P 2 14.9 93
run;
proc means;
      class trtnum;
      var age;
run;
symbol1 c=black v=dot i=rl;
symbol2 c=black v=circle i=rl;
proc gplot data=new;
      plot minutes*age=trtnum;
run;
proc reg data=new;
      model minutes=trtnum;
      model minutes=trtnum age trtnumage;
      model minutes=trtnum age;
run;
ods rtf close;
```

| Analysis Variable : age | | | | | | |
|---|---|---|---|---|---|---|
| trtnum | N Obs | N | Mean | Std Dev | Minimum | Maximum |
| 0 | 7 | 7 | 65.4285714 | 24.3574571 | 42.0000000 | 93.0000000 |
| 1 | 7 | 7 | 68.0000000 | 23.9513396 | 40.0000000 | 91.0000000 |

| Number of Observations Read | 14 |
|---|---|
| Number of Observations Used | 14 |

### Analysis of Variance

| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| Model | 1 | 5.40643 | 5.40643 | 0.39 | 0.5441 |
| Error | 12 | 166.44286 | 13.87024 | | |
| Corrected Total | 13 | 171.84929 | | | |

| Root MSE | 3.72428 | R-Square | 0.0315 |
|---|---|---|---|
| Dependent Mean | 10.80714 | Adj R-Sq | -0.0493 |
| Coeff Var | 34.46125 | | |

### Parameter Estimates

| Variable | DF | Parameter Estimate | Standard Error | t Value | Pr > \|t\| |
|---|---|---|---|---|---|
| Intercept | 1 | 11.42857 | 1.40764 | 8.12 | <.0001 |
| trtnum | 1 | -1.24286 | 1.99071 | -0.62 | 0.5441 |

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| Number of Observations Read | 14 |
|---|---|
| Number of Observations Used | 14 |

### Analysis of Variance

| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| Model | 3 | 160.83282 | 53.61094 | 48.66 | <.0001 |
| Error | 10 | 11.01646 | 1.10165 | | |
| Corrected Total | 13 | 171.84929 | | | |

| Root MSE | 1.04959 | R-Square | 0.9359 |
|---|---|---|---|
| Dependent Mean | 10.80714 | Adj R-Sq | 0.9167 |
| Coeff Var | 9.71203 | | |

### Parameter Estimates

| Variable | DF | Parameter Estimate | Standard Error | t Value | Pr > \|t\| |
|---|---|---|---|---|---|
| Intercept | 1 | 1.31731 | 1.21746 | 1.08 | 0.3046 |
| trtnum | 1 | -0.85746 | 1.76622 | -0.49 | 0.6378 |
| age | 1 | 0.15454 | 0.01759 | 8.78 | <.0001 |
| trtnumage | 1 | -0.01151 | 0.02509 | -0.46 | 0.6562 |

| Number of Observations Read | 14 |
|---|---|
| Number of Observations Used | 14 |

| Analysis of Variance | | | | | |
|---|---|---|---|---|---|
| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
| Model | 2 | 160.60093 | 80.30046 | 78.53 | <.0001 |
| Error | 11 | 11.24836 | 1.02258 | | |
| Corrected Total | 13 | 171.84929 | | | |

| Root MSE | 1.01123 | R-Square | 0.9345 |
|---|---|---|---|
| Dependent Mean | 10.80714 | Adj R-Sq | 0.9226 |
| Coeff Var | 9.35702 | | |

| Parameter Estimates | | | | | |
|---|---|---|---|---|---|
| Variable | DF | Parameter Estimate | Standard Error | t Value | Pr > |t| |
| Intercept | 1 | 1.68757 | 0.87823 | 1.92 | 0.0809 |
| trtnum | 1 | -1.62569 | 0.54142 | -3.00 | 0.0120 |
| age | 1 | 0.14888 | 0.01208 | 12.32 | <.0001 |