```
[1] "T12Waistline_withHeight_RFvStepwisevLM.txt"
[1] "RandomForests"
Random Forest

89 samples
48 predictors

Pre-processing: centered, scaled
Resampling: Cross-Validated (10 fold, repeated 10 times)

Summary of sample sizes: 81, 81, 80, 79, 79, 80, ...

Resampling results across tuning parameters:

  mtry  RMSE      Rsquared   RMSE SD   Rsquared SD
   2    5.213601  0.5070223  1.567382  0.2401893
   24   3.833314  0.6646314  1.376960  0.2267761
   47   3.907892  0.6498696  1.662364  0.2608072

RMSE was used to select the optimal model using  the smallest value.
The final value used for the model was mtry = 24.
[1] "LinearModel"
Linear Regression

89 samples
48 predictors

Pre-processing: centered, scaled
Resampling: Cross-Validated (10 fold, repeated 10 times)

Summary of sample sizes: 81, 80, 81, 80, 79, 81, ...

Resampling results

  RMSE      Rsquared   RMSE SD   Rsquared SD
  8.627629  0.1995951  2.286052  0.1866372


[1] "Stepwise"

Call:
lm(formula = T12_WaistAvg ~ T4_WaistAvg + T3HKQ12 + T3HKQ18 +
    T3HKQ28 + T3HKQ32 + T3HKQ34 + T3HKQ37 + T3HKQ38 + T3HKQ41 +
    T3HKQ43 + T4_Percentile, data = X[complete.cases(X[, c(2,
    4:48, 92, 94, 96)]), c(2, 4:48, 92, 94, 96)])

Residuals:
    Min      1Q  Median      3Q     Max
-7.8737 -2.4418 -0.5351  1.4374 12.7161

Coefficients:
               Estimate Std. Error t value Pr(>|t|)
(Intercept)    22.02511    6.05294   3.639 0.000494 ***
T4_WaistAvg     0.47968    0.07629   6.288 1.79e-08 ***
T3HKQ12         1.38296    0.49914   2.771 0.007008 **
T3HKQ18         1.43674    0.65818   2.183 0.032091 *
T3HKQ28        -0.74187    0.40222  -1.844 0.068962 .
T3HKQ32        -1.83684    0.92726  -1.981 0.051169 .
T3HKQ34         2.67309    0.86441   3.092 0.002765 **
T3HKQ37        -1.77201    0.52743  -3.360 0.001216 **
T3HKQ38        -3.13734    1.04247  -3.010 0.003536 **
T3HKQ41         1.55986    0.53515   2.915 0.004658 **
T3HKQ43         1.53780    0.63980   2.404 0.018641 *
T4_Percentile   0.06797    0.01664   4.084 0.000107 ***
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Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 4.28 on 77 degrees of freedom
Multiple R-squared:  0.5981,    Adjusted R-squared:  0.5407
F-statistic: 10.42 on 11 and 77 DF,  p-value: 2.173e-11
```