```
>> LS_Regression
RMSE for Multi Variate Regression: 3.308447, Goodness of fit for Multi Variate↙
Regression: 80.615025%, RMSE for Least Squares Regression: 3.308447, Goodness of fit for↙
Least Squares Regression: 80.615025%, Goodness of fit for Bayesian Least Squares↙
Regression: 81.204603%, RMSE for Bayesian Least Squares Regression: 3.071978,
A =

   2.3673e-13


B =

    1.4979


           |  Mean       Std                 CI95            Positive↙
Distribution
-------------------------------------------------------------------------------------------↙
--------
 Intercept |  0      70.7107         [-141.273, 141.273]       0.500   t (0.00, 57.74^2,↙
6)
 s-EMG11   |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 s-EMG12   |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 Sigma2    | 0.5000   0.5000           [ 0.138,  1.616]        1.000   IG(3.00,    1)


Method: Analytic posterior distributions
Number of observations: 1350
Number of predictors:   3
Log marginal likelihood: -3672.52

           |     Mean           Std                  CI95             Positive↙
Distribution
-------------------------------------------------------------------------------------------↙
---------------------------
 Intercept | -9.1086          0.7589          [-10.596, -7.621]         0.000   t (-9.11,↙
0.76^2,1.4e+03)
 s-EMG11   |  3.6583e+06      2.8193e+05  [3105623.665, 4210953.075]    1.000   t↙
(3658288.37, 281725.28^2,1.4e+03)
 s-EMG12   |  3.1276e+05  18198.1923       [277083.313, 348429.972]     1.000   t↙
(312756.64, 18184.77^2,1.4e+03)
 Sigma2    | 12.9641          0.4986           [12.023, 13.977]         1.000   IG↙
(678.00, 0.00011)


           |     Mean           Std                  CI95             Positive↙
Distribution
-------------------------------------------------------------------------------------------↙
---------------------------
```

```
 Intercept | -9.1086          0.7589          [-10.596, -7.621]         0.000   t (-9.11,↙
0.76^2,1.4e+03)
 s-EMG11   |  3.6583e+06      2.8193e+05  [3105623.665, 4210953.075]    1.000   t↙
(3658288.37, 281725.28^2,1.4e+03)
 s-EMG12   |  3.1276e+05  18198.1923       [277083.313, 348429.972]     1.000   t↙
(312756.64, 18184.77^2,1.4e+03)
 Sigma2    | 12.9641          0.4986           [12.023, 13.977]         1.000   IG↙
(678.00, 0.00011)

>> LS_Regression
RMSE for Multi Variate Regression: 1.619250, Goodness of fit for Multi Variate↙
Regression: 93.902129%, RMSE for Least Squares Regression: 1.619250, Goodness of fit for↙
Least Squares Regression: 93.902129%, Goodness of fit for Bayesian Least Squares↙
Regression: 95.141332%, RMSE for Bayesian Least Squares Regression: 1.731407,
A =

   3.6446e-11


B =

    1.4979


           |  Mean       Std                 CI95            Positive↙
Distribution
-------------------------------------------------------------------------------------↙
--------
 Intercept |  0      70.7107         [-141.273, 141.273]       0.500   t (0.00, 57.74^2,↙
6)
 s-EMG1    |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 s-EMG2    |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 s-EMG3    |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 s-EMG4    |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 s-EMG5    |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 s-EMG6    |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 s-EMG7    |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 s-EMG8    |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 s-EMG9    |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 s-EMG10   |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 s-EMG11   |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
```

```
^2,  6)
 s-EMG12   |  0       2.2361e+05  [-446742.939, 446742.939]    0.500   t (0.00, 182574.19↙
^2,  6)
 Sigma2    | 0.5000   0.5000           [ 0.138,  1.616]        1.000   IG(3.00,    1)


Method: Analytic posterior distributions
Number of observations: 1350
Number of predictors:   13
Log marginal likelihood: -2293.69

          |       Mean             Std                  CI95             Positive↙
Distribution
-------------------------------------------------------------------------------------↙
------------------------------
 Intercept |     -1.0256          0.3957           [-1.801, -0.250]         0.005   t↙
(-1.03, 0.40^2,1.4e+03)
 s-EMG1    |  14787.8233       7076.0703          [916.831, 28658.816]      0.982   t↙
(14787.82, 7070.85^2,1.4e+03)
 s-EMG2    | -61227.9603       7621.2738       [-76167.698, -46288.223]     0.000   t↙
(-61227.96, 7615.65^2,1.4e+03)
 s-EMG3    |  82738.8104       3884.0057        [75125.119, 90352.502]      1.000   t↙
(82738.81, 3881.14^2,1.4e+03)
 s-EMG4    |  33149.2384       2047.9803        [29134.649, 37163.828]      1.000   t↙
(33149.24, 2046.47^2,1.4e+03)
 s-EMG5    |  64112.0140       4540.1417        [55212.121, 73011.907]      1.000   t↙
(64112.01, 4536.79^2,1.4e+03)
 s-EMG6    |     -5.1987e+05  34810.2542      [-588110.302, -451635.464]    0.000   t↙
(-519872.88, 34784.57^2,1.4e+03)
 s-EMG7    |      2.7963e+05  26458.2333       [227762.858, 331493.301]     1.000   t↙
(279628.08, 26438.71^2,1.4e+03)
 s-EMG8    |  42047.7003       6105.3774        [30079.526, 54015.875]      1.000   t↙
(42047.70, 6100.87^2,1.4e+03)
 s-EMG9    |  42559.9712       4642.5030        [33459.422, 51660.520]      1.000   t↙
(42559.97, 4639.08^2,1.4e+03)
 s-EMG10   |     -1.0353e+05  11151.4950      [-125392.653, -81672.821]     0.000   t↙
(-103532.74, 11143.27^2,1.4e+03)
 s-EMG11   |      2.0680e+05      1.3074e+05   [-49484.671, 463089.570]     0.943   t↙
(206802.45, 130644.42^2,1.4e+03)
 s-EMG12   |  47987.1014      10124.8282        [28139.727, 67834.476]      1.000   t↙
(47987.10, 10117.36^2,1.4e+03)
 Sigma2    |      1.5922          0.0612           [ 1.477,  1.717]         1.000   IG↙
(678.00, 0.00093)


          |       Mean             Std                  CI95             Positive↙
Distribution
-------------------------------------------------------------------------------------↙
------------------------------
 Intercept |     -1.0256          0.3957           [-1.801, -0.250]         0.005   t↙
(-1.03, 0.40^2,1.4e+03)
```

```
 s-EMG1    |  14787.8233       7076.0703          [916.831, 28658.816]      0.982   t↙
(14787.82, 7070.85^2,1.4e+03)
 s-EMG2    | -61227.9603       7621.2738       [-76167.698, -46288.223]     0.000   t↙
(-61227.96, 7615.65^2,1.4e+03)
 s-EMG3    |  82738.8104       3884.0057        [75125.119, 90352.502]      1.000   t↙
(82738.81, 3881.14^2,1.4e+03)
 s-EMG4    |  33149.2384       2047.9803        [29134.649, 37163.828]      1.000   t↙
(33149.24, 2046.47^2,1.4e+03)
 s-EMG5    |  64112.0140       4540.1417        [55212.121, 73011.907]      1.000   t↙
(64112.01, 4536.79^2,1.4e+03)
 s-EMG6    |     -5.1987e+05  34810.2542      [-588110.302, -451635.464]    0.000   t↙
(-519872.88, 34784.57^2,1.4e+03)
 s-EMG7    |      2.7963e+05  26458.2333       [227762.858, 331493.301]     1.000   t↙
(279628.08, 26438.71^2,1.4e+03)
 s-EMG8    |  42047.7003       6105.3774        [30079.526, 54015.875]      1.000   t↙
(42047.70, 6100.87^2,1.4e+03)
 s-EMG9    |  42559.9712       4642.5030        [33459.422, 51660.520]      1.000   t↙
(42559.97, 4639.08^2,1.4e+03)
 s-EMG10   |     -1.0353e+05  11151.4950      [-125392.653, -81672.821]     0.000   t↙
(-103532.74, 11143.27^2,1.4e+03)
 s-EMG11   |      2.0680e+05      1.3074e+05   [-49484.671, 463089.570]     0.943   t↙
(206802.45, 130644.42^2,1.4e+03)
 s-EMG12   |  47987.1014      10124.8282        [28139.727, 67834.476]      1.000   t↙
(47987.10, 10117.36^2,1.4e+03)
 Sigma2    |      1.5922          0.0612           [ 1.477,  1.717]         1.000   IG↙
(678.00, 0.00093)

>>
```