```
997  0  OUTPUT ACTIVATE RMSEOutput.
997  0 M>  OUTPUT ACTIVATE RMSEOutput.
998  0  TITLE 'RMSE'.
998  0 M>  TITLE 'RMSE'.
```

```
 999  0  GET DATA /TYPE=TXT /FILE='D:\DATA ANALYSIS\N Time Series Tests and Fo
recasting\RMSE\dataset.csv' /ENCODING='UTF8' /DELCASE=
            LINE /DELIMITERS=',' /QUALIFIER='"' /ARRANGEMENT=DELIMITED /FIRSTC
ASE=2
 999  0 M>  GET DATA /TYPE=TXT /FILE='D:\DATA ANALYSIS\N Time Series Tests and
 Forecasting\RMSE\dataset.csv' /ENCODING='UTF8' /DELCA
               SE=LINE /DELIMITERS=',' /QUALIFIER='"' /ARRANGEMENT=DELIMITED /
FIRSTCASE=2
1000  0   /VARIABLES=school A8 sex A8 age F8.0 address A8 famsize A8 Pstatus A
8 Medu F8.0 Fedu F8.0 Mjob A16 Fjob A16 reason A16 gua
            rdian A16 traveltime F8.0 studytime F8.0 failures F8.0 schoolsup A
8 famsup A8 paid A8 activities A8 nursery A8 higher A8
             internet A8 romantic A8 famrel F8.0 freetime F8.0 goout F8.0 Dalc
 F8.0 Walc F8.0 health F8.0 absences F8.0 G1 F8.0 G2 F
            8.0 G3 F8.0.
1000  0 M>   /VARIABLES=school A8 sex A8 age F8.0 address A8 famsize A8 Pstatu
s A8 Medu F8.0 Fedu F8.0 Mjob A16 Fjob A16 reason A16
               guardian A16 traveltime F8.0 studytime F8.0 failures F8.0 schoo
lsup A8 famsup A8 paid A8 activities A8 nursery A8 hig
               her A8 internet A8 romantic A8 famrel F8.0 freetime F8.0 goout
F8.0 Dalc F8.0 Walc F8.0 health F8.0 absences F8.0 G1
               F8.0 G2 F8.0 G3 F8.0.
1001  0  DATASET NAME RMSEData.
1001  0 M>  DATASET NAME RMSEData.
1002  0  COMPUTE time_index=$CASENUM.
1002  0 M>  COMPUTE time_index=$CASENUM.
1003  0  EXECUTE.
1003  0 M>  EXECUTE.
1004  0  * BEGIN METHOD-SPECIFIC SPSS WORKFLOW.
1004  0 M>  * BEGIN METHOD-SPECIFIC SPSS WORKFLOW.
1005  0  COMPUTE forecast=LAG(G3).
1005  0 M>  COMPUTE forecast=LAG(G3).
1006  0  COMPUTE squared_error=(G3-forecast)**2.
1006  0 M>  COMPUTE squared_error=(G3-forecast)**2.
1007  0  DESCRIPTIVES VARIABLES=squared_error /STATISTICS=MEAN STDDEV MIN MAX
SUM.
1007  0 M>  DESCRIPTIVES VARIABLES=squared_error /STATISTICS=MEAN STDDEV MIN M
AX SUM.
```

Descriptives

Notes

Output Created		18-JUL-2026 15:53:43
Comments		
Input	Data	D:\DATA ANALYSIS\N Time Series Tests and Forecasting\RMSE\dataset.csv
	Active Dataset	RMSEData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=squared_error /STATISTICS=MEAN STDDEV MIN MAX SUM.
Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.06

[RMSEData]

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
squared_error	648	.00	361.00	10956.00	16.9074	37.21682
Valid N (listwise)	648					

```
1008  0  ECHO 'RMSE is the square root of the reported mean squared error'.
1008  0 M>  ECHO 'RMSE is the square root of the reported mean squared error'.
RMSE is the square root of the reported mean squared error
1009  0  * END METHOD-SPECIFIC SPSS WORKFLOW.
1009  0 M>  * END METHOD-SPECIFIC SPSS WORKFLOW.
1010  0  SAVE OUTFILE='D:\DATA ANALYSIS\N Time Series Tests and Forecasting\RM
SE\SPSS_Output\sav\rmse_spss_ready_data.sav' /COMPRESS
           ED.
```

```
1010  0 M>  SAVE OUTFILE='D:\DATA ANALYSIS\N Time Series Tests and Forecasting
\RMSE\SPSS_Output\sav\rmse_spss_ready_data.sav' /COMPR
              ESSED.
1011  0  ECHO 'RMSE'.
1011  0 M>  ECHO 'RMSE'.
RMSE
1012  0  ECHO 'Method type: forecast_accuracy_metric'.
1012  0 M>  ECHO 'Method type: forecast_accuracy_metric'.
Method type: forecast_accuracy_metric
1013  0  ECHO 'Design: Root mean squared error of the one-step naive forecast.
'.
1013  0 M>  ECHO 'Design: Root mean squared error of the one-step naive foreca
st.'.
Design: Root mean squared error of the one-step naive forecast.
1014  0  ECHO 'Formula: RMSE=sqrt((1/n)*sum((y_t-yhat_t)^2))'.
1014  0 M>  ECHO 'Formula: RMSE=sqrt((1/n)*sum((y_t-yhat_t)^2))'.
Formula: RMSE=sqrt((1/n)*sum((y_t-yhat_t)^2))
1015  0  ECHO 'Series order: source-row order'.
1015  0 M>  ECHO 'Series order: source-row order'.
Series order: source-row order
1016  0  ECHO 'rmse = 4.111861793325185'.
1016  0 M>  ECHO 'rmse = 4.111861793325185'.
rmse = 4.111861793325185
1017  0  ECHO 'mse = 16.90740740740741'.
1017  0 M>  ECHO 'mse = 16.90740740740741'.
mse = 16.90740740740741
1018  0  ECHO 'evaluated_forecasts = 648'.
1018  0 M>  ECHO 'evaluated_forecasts = 648'.
evaluated_forecasts = 648
1019  0  ECHO 'median_squared_error = 4.0'.
1019  0 M>  ECHO 'median_squared_error = 4.0'.
median_squared_error = 4.0
1020  0  ECHO 'maximum_squared_error = 361.0'.
1020  0 M>  ECHO 'maximum_squared_error = 361.0'.
maximum_squared_error = 361.0
1021  0  ECHO 'Cross-check status: pass'.
1021  0 M>  ECHO 'Cross-check status: pass'.
Cross-check status: pass
```

```
1022  0  OUTPUT SAVE OUTFILE='D:\DATA ANALYSIS\N Time Series Tests and Forecas
ting\RMSE\SPSS_Output\spv\rmse_spss_output.spv'.
1022  0 M>  OUTPUT SAVE OUTFILE='D:\DATA ANALYSIS\N Time Series Tests and Fore
casting\RMSE\SPSS_Output\spv\rmse_spss_output.spv'.
1023  0  OUTPUT EXPORT /CONTENTS EXPORT=ALL LAYERS=PRINTSETTING MODELVIEWS=PRI
NTSETTING /PDF DOCUMENTFILE='D:\DATA ANALYSIS\N Time S
            eries Tests and Forecasting\RMSE\SPSS_Output\pdf\rmse_spss_output.
pdf'.
1023  0 M>  OUTPUT EXPORT /CONTENTS EXPORT=ALL LAYERS=PRINTSETTING MODELVIEWS=
PRINTSETTING /PDF DOCUMENTFILE='D:\DATA ANALYSIS\N Tim
               e Series Tests and Forecasting\RMSE\SPSS_Output\pdf\rmse_spss_o
utput.pdf'.
```