

www.konsultan-statistik.com
 email: ahlidata@yahoo.com
 Mobile: 0811 843 623

Descriptives

Notes

| | | |
|------------------------|---------------------------|--|
| Output Created | | 14-OCT-2013 19:30:42 |
| Comments | | |
| Input | Data | D:\latihan\data1.sav |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data | 50 |
| Missing Value Handling | File | |
| | Definition of Missing | User defined missing values are treated as missing. |
| Syntax | Cases Used | All non-missing data are used. |
| | | DESCRIPTIVES |
| | | VARIABLES=TinggiBadan IQ IP /STATISTICS=MEAN STDDEV MIN MAX. |
| Resources | Processor Time | 00:00:00.00 |
| | Elapsed Time | 00:00:00.00 |

[DataSet1] D:\latihan\data1.sav

Descriptive Statistics

| | N | Minimum | Maximum | Mean | Std. Deviation |
|--------------------|----|---------|---------|--------|----------------|
| Tinggi Badan | 50 | 130 | 180 | 153.52 | 14.699 |
| IQ | 50 | 90 | 140 | 116.86 | 15.352 |
| IP | 50 | 2.01 | 4.00 | 3.1042 | .47197 |
| Valid N (listwise) | 50 | | | | |

```

REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT IP
  /METHOD=ENTER IQ
  /SCATTERPLOT=( *ZRESID , *ZPRED)
  /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)
  /SAVE ZRESID.

```

REGRESI LINIER SEDERHANA

Regression

Notes

| | | |
|------------------------|---------------------------|---|
| Output Created | | 14-OCT-2013 19:31:48 |
| Comments | | |
| Input | Data | D:\latihan\data1.sav |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| Missing Value Handling | N of Rows in Working Data | 50 |
| | File | |
| | Definition of Missing | User-defined missing values are treated as missing. |
| Syntax | Cases Used | Statistics are based on cases with no missing values for any variable used. |
| | | REGRESSION |
| | | /MISSING LISTWISE |
| | | /STATISTICS COEFF OUTS R |
| | | ANOVA |
| Resources | | /CRITERIA=PIN(.05) POUT(.10) |
| | | /NOORIGIN |
| | | /DEPENDENT IP |
| | | /METHOD=ENTER IQ |
| | | /SCATTERPLOT=(*ZRESID |
| | | , *ZPRED) |
| | | /RESIDUALS HISTOGRAM(ZRESID) |
| | | NORMPROB(ZRESID) |
| | | /SAVE ZRESID. |
| | Processor Time | 00:00:00.70 |
| | Elapsed Time | 00:00:00.62 |

| | | |
|----------------------------------|--|-----------------------|
| | Memory Required | 1396 bytes |
| | Additional Memory Required for Residual Plots | 912 bytes |
| Variables Created or Modified | ZRE_1 | Standardized Residual |

[DataSet1] D:\latihan\data1.sav

Variables Entered/Removed^a

| Model | Variables Entered | Variables Removed | Method |
|-------|-------------------|-------------------|--------|
| 1 | IQ ^b | . | Enter |

- a. Dependent Variable: IP
- b. All requested variables entered.

Model Summary^b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .808 ^a | .653 | .646 | .28086 |

- a. Predictors: (Constant), IQ
- b. Dependent Variable: IP

Nilai R square = 0.653 dari tabel di atas menunjukkan bahwa 65.3% dari varians IP dapat dijelaskan oleh perubahan dalam variabel IQ. Sedangkan 34.7% sisanya dijelaskan oleh faktor lain di luar model.

ANOVA^a

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|--------|-------------------|
| 1 | Regression | 7.129 | 1 | 7.129 | 90.369 | .000 ^b |
| | Residual | 3.786 | 48 | .079 | | |
| | Total | 10.915 | 49 | | | |

- a. Dependent Variable: IP
- b. Predictors: (Constant), IQ

Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | |
|-------|-----------------------------|------------|---------------------------|------|-------|------|
| | B | Std. Error | Beta | | | |
| 1 | (Constant) | .201 | .308 | | .652 | .518 |
| | IQ | .025 | .003 | .808 | 9.506 | .000 |

a. Dependent Variable: IP

Uji t dimaksudkan untuk menguji apakah variabel independen secara parsial berpengaruh signifikan terhadap variabel dependen.

Hipotesis:

H0: variabel independen secara parsial tidak berpengaruh signifikan terhadap variabel dependen

H1: variabel independen secara parsial berpengaruh signifikan terhadap variabel dependen

Dasar Pengambilan Keputusan

Jika probabilitasnya (nilai sig) > 0.05 atau $- t \text{ tabel} < t \text{ hitung} < t \text{ tabel}$ maka H0 tidak ditolak

Jika probabilitasnya (nilai sig) < 0.05 atau $t \text{ hitung} < - t \text{ tabel}$ atau $t \text{ hitung} > t \text{ tabel}$ maka H0 ditolak

Keputusan:

Pada tabel di atas nilai sig variabel IQ = 0.000 < 0.05 sehingga H0 ditolak, yang berarti variabel independen IQ secara parsial berpengaruh positif dan signifikan terhadap variabel IP. Makin tinggi IQ, makin tinggi IP. Demikian juga sebaliknya.

Dengan demikian persamaan estimasinya adalah :

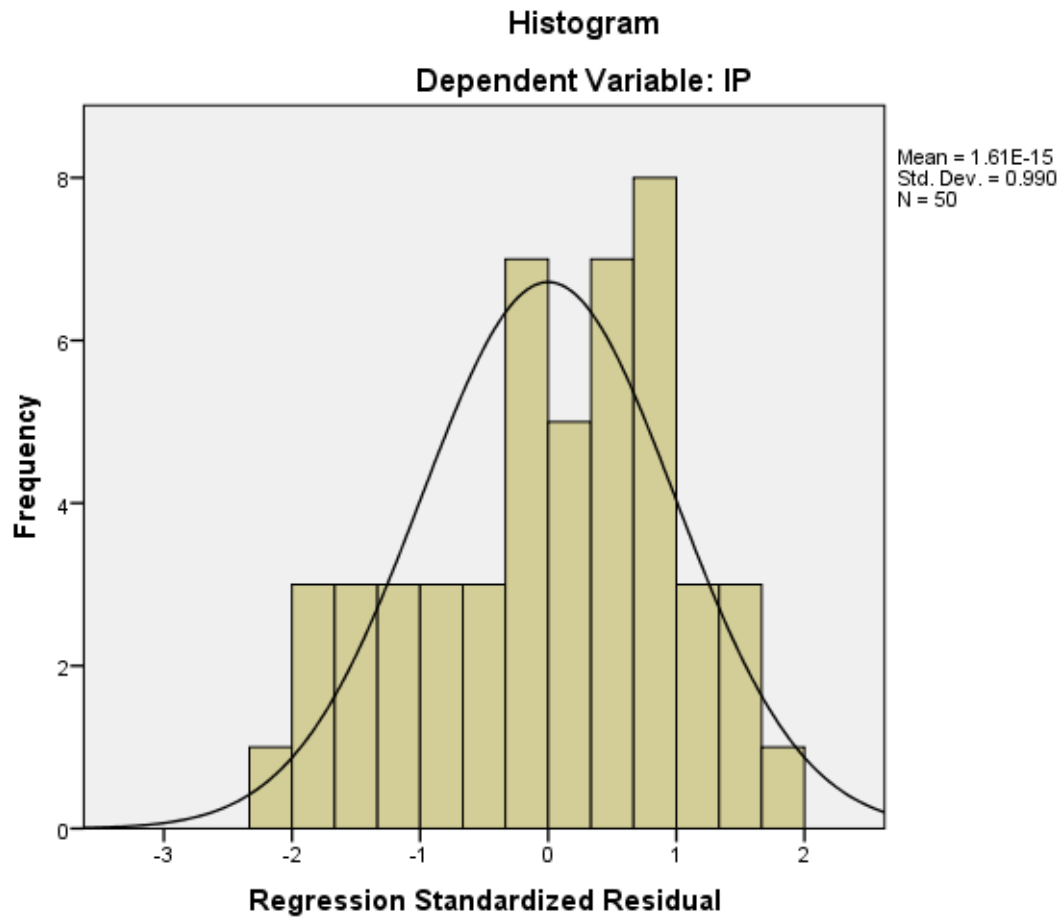
$$IP = 0.201 + 0.025 * IQ$$

Setiap kenaikan IP sebesar satu satuan, maka IP naik sebesar 0.025.

| | Minimum | Maximum | Mean | Std. Deviation | N |
|----------------------|---------|---------|--------|----------------|----|
| Predicted Value | 2.4368 | 3.6791 | 3.1042 | .38142 | 50 |
| Residual | -.56429 | .47893 | .00000 | .27798 | 50 |
| Std. Predicted Value | -1.750 | 1.507 | .000 | 1.000 | 50 |
| Std. Residual | -2.009 | 1.705 | .000 | .990 | 50 |

a. Dependent Variable: IP

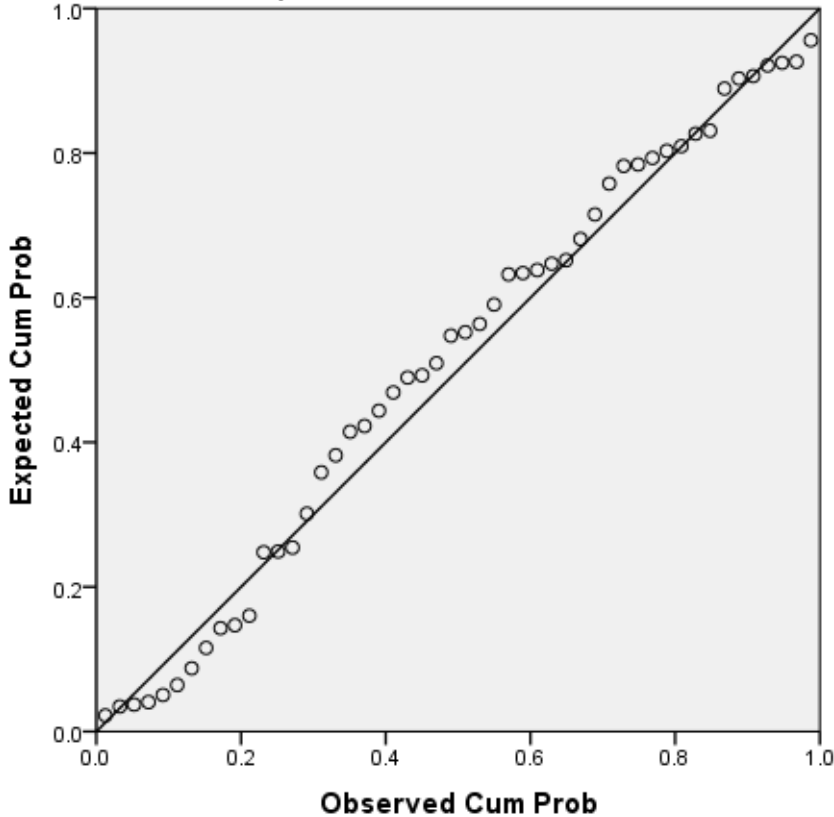
Charts

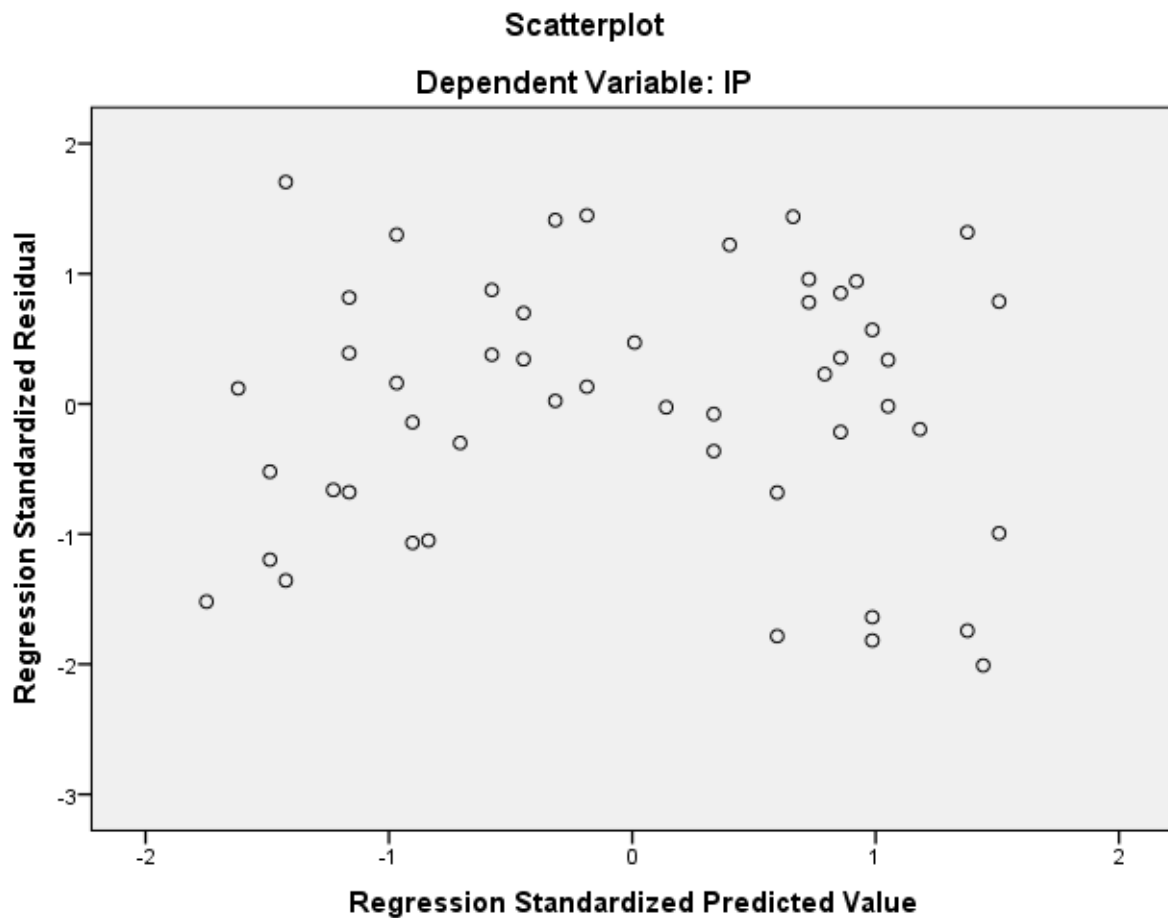


Secara penampakan visual residual berdistribusi normal, karena distribusi residual mendekati distribusi normal teoritis (bentuk lonceng)

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: IP





Pendeteksian ada tidaknya heteroskedastisitas dilakukan dengan cara melihat diagram pencarnya (scatterplot diagram). Bila ada pola tertentu, seperti titik-titik yang membentuk suatu pola tertentu dan teratur (bergelombang, melebar kemudian menyempit) maka terjadi heteroskedastisitas. Jika tidak ada pola yang jelas, serta titik-titik menyebar maka tidak terjadi heteroskedastisitas. Berdasarkan diagram scatterplot di atas, terlihat bahwa data tidak membentuk suatu pola tertentu (berpencar tidak teratur). Hal ini berarti model penelitian terbebas dari masalah heteroskedastisitas.


```

/K-S(NORMAL)=ZRE_1
/MISSING ANALYSIS.

```

NPar Tests

| Notes | | |
|------------------------|--------------------------------------|--|
| Output Created | | 14-OCT-2013 19:32:08 |
| Comments | | |
| | Data | D:\latihan\data1.sav |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| Input | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data | 50 |
| | File | |
| | Definition of Missing | User-defined missing values are treated as missing. |
| Missing Value Handling | | Statistics for each test are based on all cases with valid data for the variable(s) used in that test. |
| | Cases Used | |
| | | NPAR TESTS |
| Syntax | | /K-S(NORMAL)=ZRE_1 |
| | | /MISSING ANALYSIS. |
| | Processor Time | 00:00:00.00 |
| Resources | Elapsed Time | 00:00:00.01 |
| | Number of Cases Allowed ^a | 196608 |

a. Based on availability of workspace memory.

[DataSet1] D:\latihan\data1.sav

One-Sample Kolmogorov-Smirnov Test

| | | Standardized Residual |
|----------------------------------|----------------|-----------------------|
| N | | 50 |
| Normal Parameters ^{a,b} | Mean | .0000000 |
| | Std. Deviation | .98974332 |
| Most Extreme Differences | Absolute | .074 |

| | | |
|------------------------|----------|-------|
| | Positive | .062 |
| | Negative | -.074 |
| Kolmogorov-Smirnov Z | | .521 |
| Asymp. Sig. (2-tailed) | | .949 |

a. Test distribution is Normal.

b. Calculated from data.

Uji normalitas (uji Kolmogorov- Smirnov)

Uji normalitas adalah untuk melihat apakah nilai residual terdistribusi normal atau tidak. Model regresi yang baik adalah memiliki nilai residual yang terdistribusi normal. Jadi uji normalitas bukan dilakukan pada masing-masing variabel tetapi pada nilai residualnya.

Hipotesis:

H0: data berdistribusi normal

H1: data tidak berdistribusi normal

Dasar Pengambilan Keputusan

Jika probabilitasnya (nilai sig) > 0.05 maka H0 tidak ditolak

Jika probabilitasnya (nilai sig) < 0.05 maka H0 ditolak

Keputusan:

Pada tabel di atas nilai sig = 0.949 > 0.05, sehingga H0 tidak ditolak, yang berarti data residual berdistribusi normal.

```

COMPUTE AbsRes=abs(ZRE_1).
EXECUTE.
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT AbsRes
  /METHOD=ENTER IQ
  /SCATTERPLOT=( *ZRESID , *ZPRED)
  /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)

```

/SAVE ZRESID.

Regression

Notes

| | | |
|-------------------------------|---|---|
| Output Created | | 14-OCT-2013 19:32:39 |
| Comments | | |
| | Data | D:\latihan\data1.sav |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| Input | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data | 50 |
| | File | |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| | Cases Used | Statistics are based on cases with no missing values for any variable used. |
| | | REGRESSION |
| | | /MISSING LISTWISE |
| | | /STATISTICS COEFF OUTS R |
| | | ANOVA |
| | | /CRITERIA=PIN(.05) POUT(.10) |
| | | /NOORIGIN |
| Syntax | | /DEPENDENT AbsRes |
| | | /METHOD=ENTER IQ |
| | | /SCATTERPLOT=(*ZRESID |
| | | ,*ZPRED) |
| | | /RESIDUALS HISTOGRAM(ZRESID) |
| | | NORMPROB(ZRESID) |
| | | /SAVE ZRESID. |
| | Processor Time | 00:00:00.58 |
| | Elapsed Time | 00:00:00.58 |
| Resources | Memory Required | 1436 bytes |
| | Additional Memory Required for Residual Plots | 912 bytes |
| Variables Created or Modified | ZRE_2 | Standardized Residual |

[DataSet1] D:\latihan\data1.sav

Variables Entered/Removed^a

| Model | Variables Entered | Variables Removed | Method |
|-------|-------------------|-------------------|--------|
| 1 | IQ ^b | . | Enter |

- a. Dependent Variable: AbsRes
 b. All requested variables entered.

Model Summary^b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .095 ^a | .009 | -.012 | .57144 |

- a. Predictors: (Constant), IQ
 b. Dependent Variable: AbsRes

ANOVA^a

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|------|-------------------|
| 1 | Regression | .143 | 1 | .143 | .439 | .511 ^b |
| | Residual | 15.674 | 48 | .327 | | |
| | Total | 15.817 | 49 | | | |

- a. Dependent Variable: AbsRes
 b. Predictors: (Constant), IQ

Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .390 | .627 | | .623 | .536 |
| | IQ | .004 | .005 | .095 | .663 | .511 |

- a. Dependent Variable: AbsRes

Uji Heteroskedastisitas

Heteroskedastisitas adalah kondisi dimana seluruh faktor gangguan tidak memiliki varian yang sama. Heteroskedastisitas akan menyebabkan penaksiran koefisien-koefisien regresi menjadi tidak efisien.

Pendeteksian ada tidaknya heteroskedastisitas menggunakan uji Glejser yang meregresikan nilai absolute residual (AbsRes) terhadap variabel independen.

Hipotesis:

H0: tidak terjadi heteroskedastisitas

H1: terjadi heteroskedastisitas

Dasar Pengambilan Keputusan

Jika probabilitasnya (nilai sig) > 0.05 maka H0 tidak ditolak

Jika probabilitasnya (nilai sig) < 0.05 maka H0 ditolak

Keputusan:

Pada tabel di atas nilai sig variabel IQ = 0.511 > 0.05, sehingga H0 tidak ditolak, yang berarti tidak terjadi heteroskedastisitas pada variable IQ

| | Minimum | Maximum | Mean | Std. Deviation | N |
|----------------------|---------|---------|--------|----------------|----|
| Predicted Value | .7076 | .8838 | .8023 | .05411 | 50 |
| Residual | -.84061 | 1.12879 | .00000 | .56558 | 50 |
| Std. Predicted Value | -1.750 | 1.507 | .000 | 1.000 | 50 |
| Std. Residual | -1.471 | 1.975 | .000 | .990 | 50 |

a. Dependent Variable: AbsRes

* Curve Estimation.
TSET NEWVAR=NONE.
CURVEFIT

```

/VARIABLES=IP WITH IQ
/CONSTANT
/MODEL=LINEAR
/PRINT ANOVA
/PLOT FIT.

```

Curve Fit

Notes

| | | |
|-----------------------------|--|--|
| Output Created | | 14-OCT-2013 19:34:16 |
| Comments | | |
| Input | Data | D:\latihan\data1.sav |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data | 50 |
| Missing Value Handling | File | |
| | Definition of Missing | User-defined missing values are treated as missing. |
| Cases Used | Cases Used | Cases with a missing value in any variable are not used in the analysis. |
| | | CURVEFIT |
| Syntax | | /VARIABLES=IP WITH IQ |
| | | /CONSTANT |
| | | /MODEL=LINEAR |
| | | /PRINT ANOVA |
| | | /PLOT FIT. |
| Resources | Processor Time | 00:00:00.23 |
| | Elapsed Time | 00:00:00.20 |
| Use | From | First observation |
| | To | Last observation |
| Predict | From | First Observation following the use period |
| | To | Last observation |
| Time Series Settings (TSET) | Amount of Output | PRINT = DEFAULT |
| | Saving New Variables | NEWVAR = NONE |
| | Maximum Number of Lags in Autocorrelation or Partial Autocorrelation Plots | MXAUTO = 16 |
| | | |

| | |
|--|-------------------|
| Maximum Number of Lags Per Cross-Correlation Plots | MXCROSS = 7 |
| Maximum Number of New Variables Generated Per Procedure | MXNEWVAR = 60 |
| Maximum Number of New Cases Per Procedure | MPREDICT = 1000 |
| Treatment of User-Missing Values | MISSING = EXCLUDE |
| Confidence Interval Percentage Value | CIN = 95 |
| Tolerance for Entering Variables in Regression Equations | TOLER = .0001 |
| Maximum Iterative Parameter Change | CNVERGE = .001 |
| Method of Calculating Std. Errors for Autocorrelations | ACFSE = IND |
| Length of Seasonal Period | Unspecified |
| Variable Whose Values Label Observations in Plots | Unspecified |
| Equations Include | CONSTANT |

[DataSet1] D:\latihan\data1.sav

Model Description

| | |
|---|-------------|
| Model Name | MOD_3 |
| Dependent Variable | 1 IP |
| Equation | 1 Linear |
| Independent Variable | IQ |
| Constant | Included |
| Variable Whose Values Label Observations in Plots | Unspecified |

Case Processing Summary

| | N |
|-----------------------------|----|
| Total Cases | 50 |
| Excluded Cases ^a | 0 |
| Forecasted Cases | 0 |

| | |
|---------------------|---|
| Newly Created Cases | 0 |
|---------------------|---|

a. Cases with a missing value in any variable are excluded from the analysis.

Variable Processing Summary

| | Variables | |
|---------------------------|-----------|-------------|
| | Dependent | Independent |
| | IP | IQ |
| Number of Positive Values | 50 | 50 |
| Number of Zeros | 0 | 0 |
| Number of Negative Values | 0 | 0 |
| Number of Missing Values | | |
| User-Missing | 0 | 0 |
| System-Missing | 0 | 0 |

IP

Linear

Model Summary

| R | R Square | Adjusted R Square | Std. Error of the Estimate |
|------|----------|-------------------|----------------------------|
| .808 | .653 | .646 | .281 |

The independent variable is IQ.

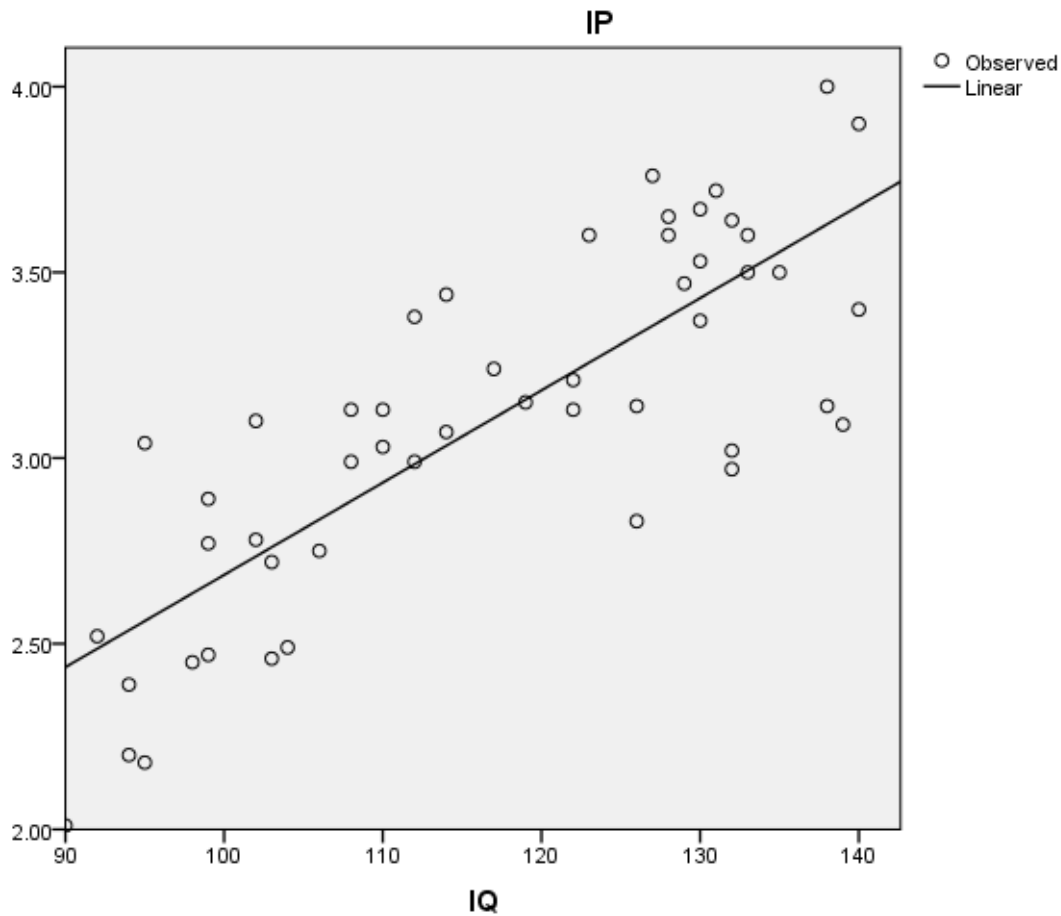
ANOVA

| | Sum of Squares | df | Mean Square | F | Sig. |
|------------|----------------|----|-------------|--------|------|
| Regression | 7.129 | 1 | 7.129 | 90.369 | .000 |
| Residual | 3.786 | 48 | .079 | | |
| Total | 10.915 | 49 | | | |

The independent variable is IQ.

Coefficients

| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | | |
| IQ | .025 | .003 | .808 | 9.506 | .000 |
| (Constant) | .201 | .308 | | .652 | .518 |



Data IP dan IQ bila diplotkan ke dalam diagram pencar seperti tertera pada diagram di atas. Garis regresi dengan kemiringan positif (dari kiri bawah ke kanan atas) menunjukkan bahwa IQ berpengaruh positif terhadap IP. Makin tinggi IQ makin tinggi IP.

```
REGRESSION  
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL  
/CRITERIA=PIN(.05) POUT(.10)  
/NOORIGIN  
/DEPENDENT IP  
/METHOD=ENTER IQ TinggiBadan
```

```
/SCATTERPLOT=( *ZRESID , *ZPRED)  
/RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)  
/SAVE ZRESID.
```

REGRESI LINIER BERGANDA

Regression

Notes

| | | |
|-------------------------------|---|---|
| Output Created | | 14-OCT-2013 19:35:46 |
| Comments | | |
| Input | Data | D:\latihan\data1.sav |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data | 50 |
| Missing Value Handling | File | |
| | Definition of Missing | User-defined missing values are treated as missing. |
| Syntax | Cases Used | Statistics are based on cases with no missing values for any variable used. |
| | | <p>REGRESSION</p> <p> /MISSING LISTWISE</p> <p> /STATISTICS COEFF OUTS R</p> <p>ANOVA COLLIN TOL</p> <p> /CRITERIA=PIN(.05) POUT(.10)</p> <p> /NOORIGIN</p> <p> /DEPENDENT IP</p> <p> /METHOD=ENTER IQ TinggiBadan</p> <p> /SCATTERPLOT=(*ZRESID ,*ZPRED)</p> <p> /RESIDUALS HISTOGRAM(ZRESID)</p> <p>NORMPROB(ZRESID)</p> <p> /SAVE ZRESID.</p> |
| Resources | Processor Time | 00:00:01.26 |
| | Elapsed Time | 00:00:01.38 |
| | Memory Required | 1764 bytes |
| | Additional Memory Required for Residual Plots | 904 bytes |
| Variables Created or Modified | ZRE_5 | Standardized Residual |

[DataSet1] D:\latihan\data1.sav

Variables Entered/Removed^a

| Model | Variables Entered | Variables Removed | Method |
|-------|-------------------------------|-------------------|--------|
| 1 | Tinggi Badan, IQ ^b | . | Enter |

- a. Dependent Variable: IP
- b. All requested variables entered.

Model Summary^b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .816 ^a | .666 | .652 | .27855 |

- a. Predictors: (Constant), Tinggi Badan, IQ
- b. Dependent Variable: IP

ANOVA^a

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|--------------|----------------|----|-------------|--------|-------------------|
| 1 Regression | 7.269 | 2 | 3.634 | 46.841 | .000 ^b |
| Residual | 3.647 | 47 | .078 | | |
| Total | 10.915 | 49 | | | |

- a. Dependent Variable: IP
- b. Predictors: (Constant), Tinggi Badan, IQ

Uji F dimaksudkan untuk menguji apakah variabel-variabel independen secara bersama-sama berpengaruh signifikan terhadap variabel dependen.

Hipotesis:

H0: variabel-variabel independen secara bersama-sama tidak berpengaruh signifikan terhadap variabel dependen

H1: variabel-variabel independen secara bersama-sama berpengaruh signifikan terhadap variabel dependen

Dasar Pengambilan Keputusan

Jika probabilitasnya (nilai sig) > 0.05 atau F hitung $< F$ tabel maka H_0 tidak ditolak

Jika probabilitasnya (nilai sig) < 0.05 atau F hitung $> F$ tabel maka H_0 ditolak

Keputusan:

Pada tabel di atas nilai sig = 0.000 < 0.05 , sehingga H_0 ditolak, yang berarti variabel-variabel independen secara bersama-sama berpengaruh signifikan terhadap variabel dependen.

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|--------------|-----------------------------|------------|---------------------------|-------|------|-------------------------|-------|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| (Constant) | -.358 | .516 | | -.694 | .491 | | |
| 1 IQ | .025 | .003 | .808 | 9.588 | .000 | 1.000 | 1.000 |
| Tinggi Badan | .004 | .003 | .113 | 1.343 | .186 | 1.000 | 1.000 |

a. Dependent Variable: IP

Uji t dimaksudkan untuk menguji apakah variabel independen secara parsial berpengaruh signifikan terhadap variabel dependen.

Hipotesis:

H_0 : variabel independen secara parsial tidak berpengaruh signifikan terhadap variabel dependen

H1: variabel independen secara parsial berpengaruh signifikan terhadap variabel dependen

Dasar Pengambilan Keputusan

Jika probabilitasnya (nilai sig) > 0.05 atau $-t \text{ tabel} < t \text{ hitung} < t \text{ tabel}$ maka H_0 tidak ditolak

Jika probabilitasnya (nilai sig) < 0.05 atau $t \text{ hitung} < -t \text{ tabel}$ atau $t \text{ hitung} > t \text{ tabel}$ maka H_0 ditolak

Keputusan:

1. Pada tabel di atas nilai sig variabel IQ = 0.000 < 0.05 sehingga H_0 ditolak, yang berarti variabel independen IQ secara parsial berpengaruh positif dan signifikan terhadap variabel IP. Makin tinggi IQ, makin tinggi IP. Demikian juga sebaliknya.
2. Pada tabel di atas nilai sig variabel Tinggi Badan = 0.186 > 0.05 sehingga H_0 ditolak, yang berarti variabel independen Tinggi Badan secara parsial tidak berpengaruh signifikan terhadap variabel IP. Kita tidak bisa menyimpulkan, makin tinggi badan makin tinggi IP.

Dengan demikian persamaan estimasinya adalah :

$$IP = -0.358 + 0.025 \cdot IQ + 0.004 \cdot \text{Tinggi Badan}$$

Uji Multikolinearitas

Multikolinearitas (kolinearitas ganda) berarti adanya hubungan linear yang sempurna di antara variabel-variabel bebas dalam model regresi. Korelasi yang kuat antar variabel bebas menunjukkan adanya multikolinearitas. Jika terdapat korelasi yang sempurna di antara variabel bebas, maka konsekuensinya adalah koefisien-koefisien regresi menjadi tidak dapat ditaksir, nilai *standard error* setiap regresi menjadi tidak terhingga

Ada atau tidak adanya multikolinearitas dapat dilihat dari nilai *tolerance* yang lebih dari 0.1 atau VIF yang kurang dari 10.

Kesimpulan:

Berdasarkan nilai VIF yang berada di bawah 10, dan nilai *tolerance* > 0.1, disimpulkan tidak terjadi multikolinieritas antar variabel independen.

Collinearity Diagnostics^a

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions | | |
|-------|-----------|------------|-----------------|----------------------|-----|--------------|
| | | | | (Constant) | IQ | Tinggi Badan |
| | 1 | 2.983 | 1.000 | .00 | .00 | .00 |
| 1 | 2 | .013 | 14.946 | .02 | .77 | .23 |
| | 3 | .004 | 28.327 | .98 | .23 | .77 |

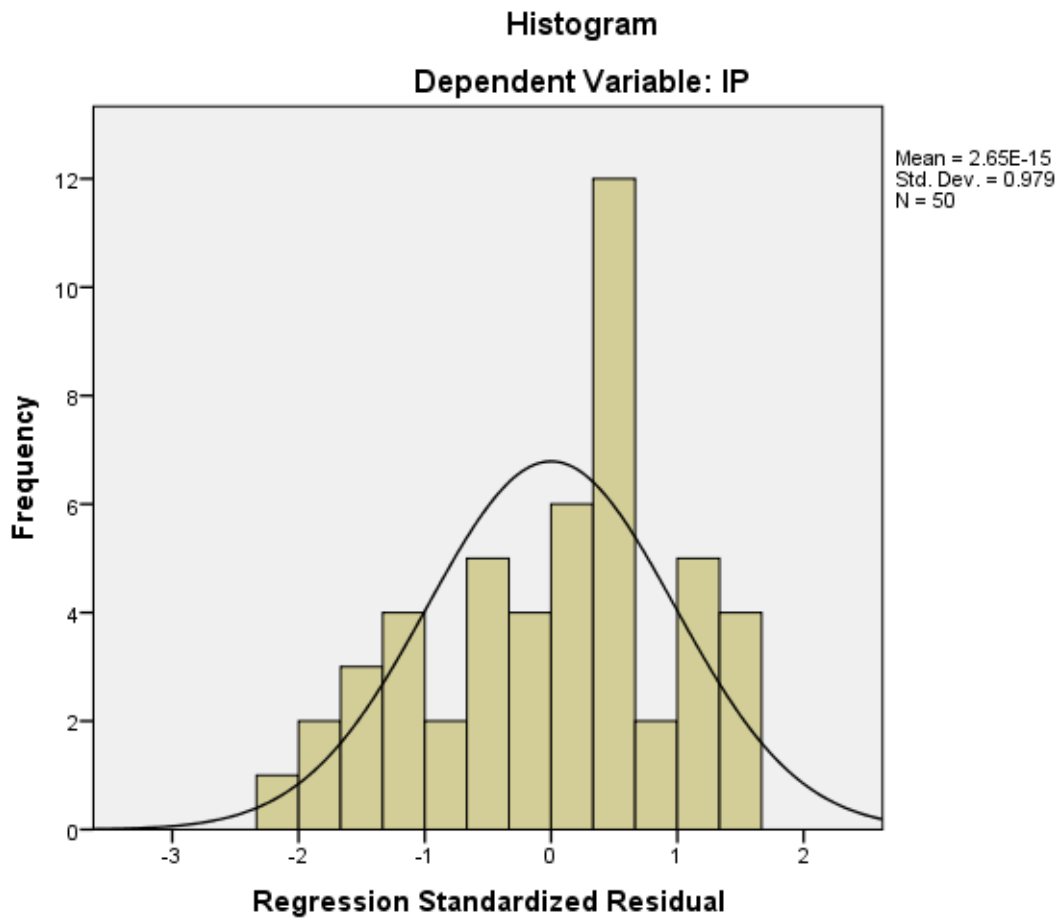
a. Dependent Variable: IP

Residuals Statistics^a

| | Minimum | Maximum | Mean | Std. Deviation | N |
|----------------------|---------|---------|--------|----------------|----|
| Predicted Value | 2.4263 | 3.7756 | 3.1042 | .38515 | 50 |
| Residual | -.63889 | .39738 | .00000 | .27280 | 50 |
| Std. Predicted Value | -1.760 | 1.743 | .000 | 1.000 | 50 |
| Std. Residual | -2.294 | 1.427 | .000 | .979 | 50 |

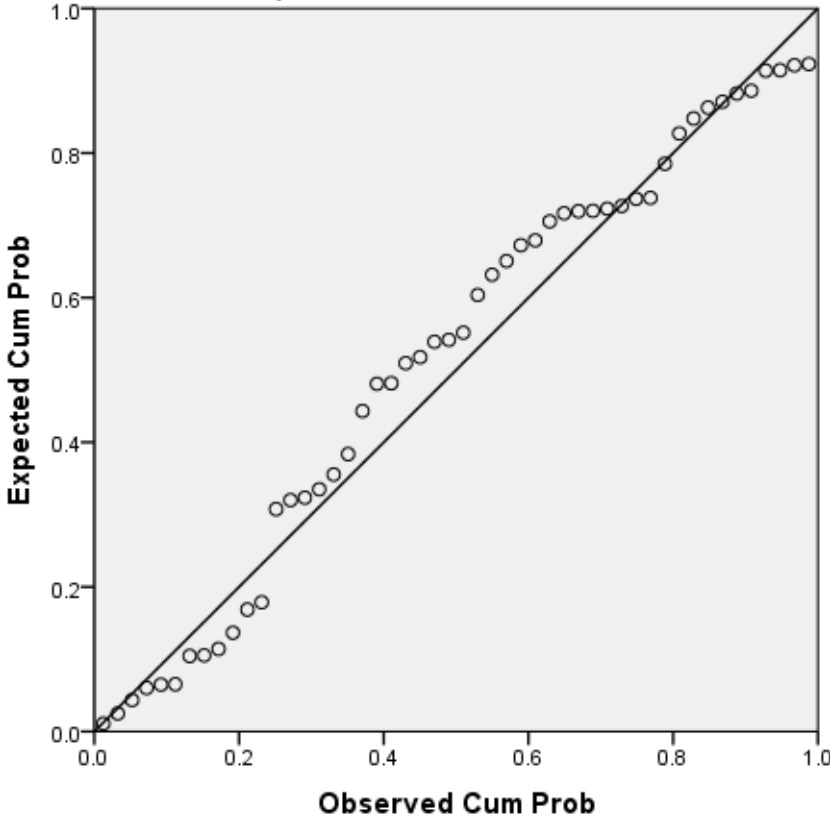
a. Dependent Variable: IP

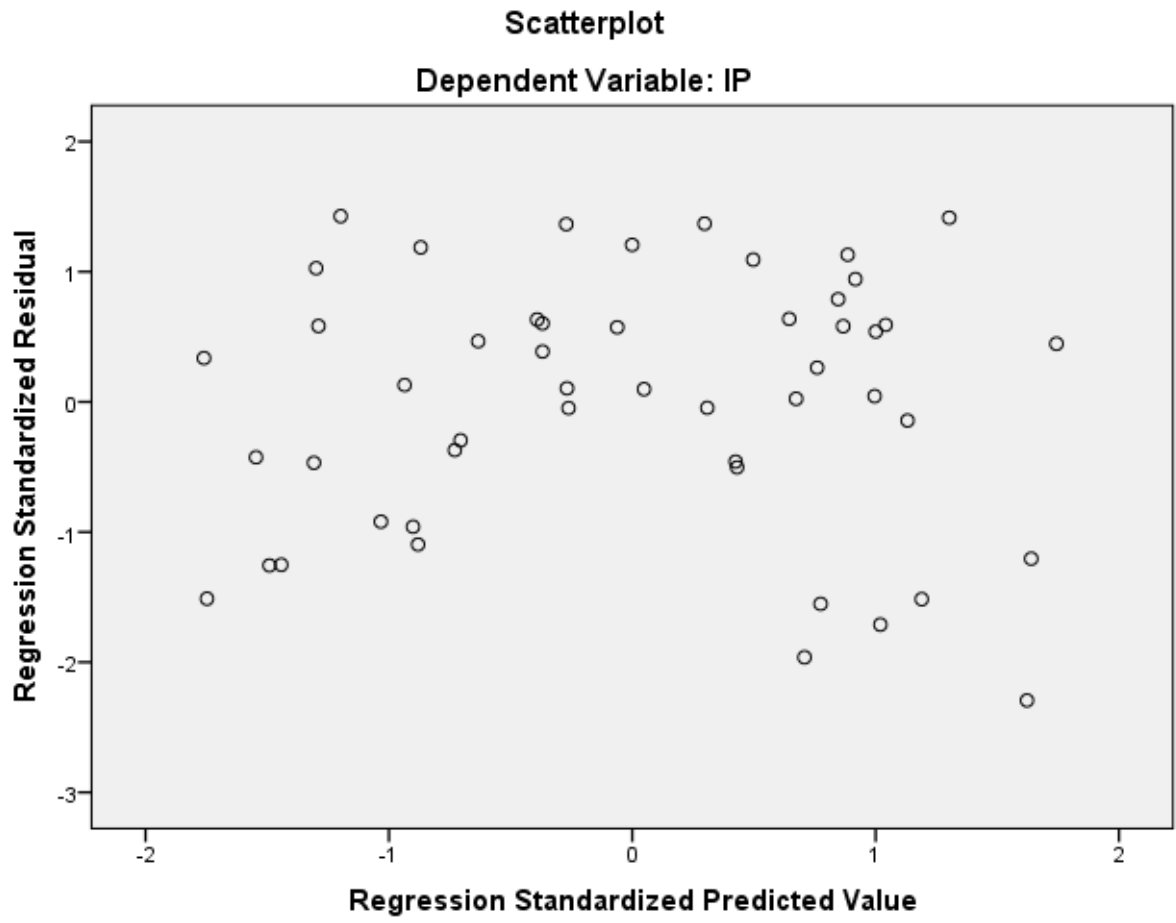
Charts



Normal P-P Plot of Regression Standardized Residual

Dependent Variable: IP





```

CORRELATIONS
/VARIABLES=TinggiBadan IQ IP
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE.

```

Correlations

| Notes | | |
|----------------|----------------|----------------------|
| Output Created | | 14-OCT-2013 19:36:30 |
| Comments | | |
| Input | Data | D:\latihan\data1.sav |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |

| | | |
|------------------------|---------------------------|---|
| | N of Rows in Working Data | 50 |
| | File | |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| | Cases Used | Statistics for each pair of variables are based on all the cases with valid data for that pair. |
| Syntax | | CORRELATIONS /VARIABLES=TinggiBadan IQ IP /PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE. |
| Resources | Processor Time | 00:00:00.05 |
| | Elapsed Time | 00:00:00.06 |

[DataSet1] D:\latihan\data1.sav

Correlations

| | | Tinggi Badan | IQ | IP |
|--------------|---------------------|--------------|--------|--------|
| Tinggi Badan | Pearson Correlation | 1 | -.002 | .111 |
| | Sig. (2-tailed) | | .988 | .441 |
| | N | 50 | 50 | 50 |
| IQ | Pearson Correlation | -.002 | 1 | .808** |
| | Sig. (2-tailed) | .988 | | .000 |
| | N | 50 | 50 | 50 |
| IP | Pearson Correlation | .111 | .808** | 1 |
| | Sig. (2-tailed) | .441 | .000 | |
| | N | 50 | 50 | 50 |

** . Correlation is significant at the 0.01 level (2-tailed).

Analisis Korelasi

Kuat lemahnya hubungan dua variabel ditunjukkan oleh nilai Pearson Correlation (R) dimana nilai secara umum dibagi menjadi sbb:

- 0 – 0.25 → korelasi sangat lemah
- 0.25 – 0.50 → korelasi moderat
- 0.50 – 0.75 → korelasi kuat

0.75 – 1.00 → korelasi sangat kuat

1. Hipotesis:

H0: Tidak ada korelasi yang nyata antara Tinggi Badan dan IP

H1: Ada korelasi yang nyata antara Tinggi Badan dan IP

Dasar Pengambilan Keputusan

Jika probalitasnya (nilai sig) > 0.05 maka H0 tidak ditolak

Jika probalitasnya (nilai sig) < 0.05 maka H0 ditolak

Keputusan:

Pada tabel di atas, nilai sig = 0.441 > 0.05 → H0 tidak ditolak, yang berarti tidak ada korelasi yang nyata antara Tinggi Badan dan IP. Koefisien korelasi R = 0.111 menunjukkan tingkat hubungan kedua variabel pada tingkat sangat lemah untuk skala 0 – 1.

2. Hipotesis:

H0: Tidak ada korelasi yang nyata antara IQ dan IP

H1: Ada korelasi yang nyata antara IQ dan IP

Dasar Pengambilan Keputusan

Jika probalitasnya (nilai sig) > 0.05 maka H0 tidak ditolak

Jika probalitasnya (nilai sig) < 0.05 maka H0 ditolak

Keputusan:

Pada tabel di atas, nilai sig = 0.000 < 0.05 → H0 ditolak, dan H1 diterima, yang berarti ada korelasi yang nyata antara IQ dan Y. Koefisien korelasi R = 0.808 menunjukkan tingkat hubungan kedua variabel pada tingkat sangat kuat untuk skala 0 – 1. Tanda **) pada nilai R menunjukkan bahwa korelasi tersebut nyata pada taraf nyata (level of signnificance) 0.01.