

# LAMPIRAN

Lampiran 1  
Responden Berdasarkan Jenis Kelamin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	LAKI-LAKI	26	68	68	58
	PEREMPUAN	12	32	32	100.0
	Total	38	100.0	100.0	

Lampiran 2  
Responden Berdasarkan Usia

		Frequency	Percent	Valid Percent	CumulativePercent
Valid	21-25 Tahun	3	8	8	8
	26-30 Tahun	7	18	18	18
	31-35 Tahun	9	24	24	24
	36-40 Tahun	14	37	37	37
	>41 Tahun	5	13	13	100.0
	Jumlah	38	100.0	100.0	

Lampiran 3  
Responden Berdasarkan Masa Kerja

		Frequency	Percent	Valid Percent	CumulativePercent
Valid	1-2 Tahun	12	32	32	32
	3-4 Tahun	18	47	47	47
	5 Tahun	8	21	21	100.0
	Jumlah	38	100.0	100.0	

Lampiran 4  
Hasil Uji Validitas Kedisiplinan (X1)

		Correlations										
		q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	jumlah
q1	Pearson Correlation	1	-,071	-,233	-,071	-,071	-,006	-,233	-,035	1,000**	,096	,300
	Sig. (2-tailed)		,673	,160	,673	,673	,973	,160	,835	,000	,566	,067
	N	38	38	38	38	38	38	38	38	38	38	38
q2	Pearson Correlation	-,071	1	,239	1,000**	1,000**	,345*	,239	-,138	-,071	-,037	,742**
	Sig. (2-tailed)	,673		,149	,000	,000	,034	,149	,407	,673	,828	,000
	N	38	38	38	38	38	38	38	38	38	38	38
q3	Pearson Correlation	-,233	,239	1	,239	,239	,260	1,000**	-,105	-,233	,158	,522**
	Sig. (2-tailed)	,160	,149		,149	,149	,115	,000	,532	,160	,344	,001
	N	38	38	38	38	38	38	38	38	38	38	38
q4	Pearson Correlation	-,071	1,000**	,239	1	1,000**	,345*	,239	-,138	-,071	-,037	,742**
	Sig. (2-tailed)	,673	,000	,149		,000	,034	,149	,407	,673	,828	,000
	N	38	38	38	38	38	38	38	38	38	38	38
q5	Pearson Correlation	-,071	1,000**	,239	1,000**	1	,345*	,239	-,138	-,071	-,037	,742**
	Sig. (2-tailed)	,673	,000	,149	,000		,034	,149	,407	,673	,828	,000
	N	38	38	38	38	38	38	38	38	38	38	38
q6	Pearson Correlation	-,006	,345*	,260	,345*	,345*	1	,260	,113	-,006	-,047	,542**
	Sig. (2-tailed)	,973	,034	,115	,034	,034		,115	,499	,973	,781	,000
	N	38	38	38	38	38	38	38	38	38	38	38
q7	Pearson Correlation	-,233	,239	1,000**	,239	,239	,260	1	-,105	-,233	,158	,522**
	Sig. (2-tailed)	,160	,149	,000	,149	,149	,115		,532	,160	,344	,001
	N	38	38	38	38	38	38	38	38	38	38	38
q8	Pearson Correlation	-,035	-,138	-,105	-,138	-,138	,113	-,105	1	-,035	-,182	,061
	Sig. (2-tailed)	,835	,407	,532	,407	,407	,499	,532		,835	,273	,718
	N	38	38	38	38	38	38	38	38	38	38	38
q9	Pearson Correlation	1,000**	-,071	-,233	-,071	-,071	-,006	-,233	-,035	1	,096	,300
	Sig. (2-tailed)	,000	,673	,160	,673	,673	,973	,160	,835		,566	,067
	N	38	38	38	38	38	38	38	38	38	38	38
q10	Pearson Correlation	,096	-,037	,158	-,037	-,037	-,047	,158	-,182	,096	1	,259
	Sig. (2-tailed)	,566	,828	,344	,828	,828	,781	,344	,273	,566		,116
	N	38	38	38	38	38	38	38	38	38	38	38
jumlah	Pearson Correlation	,300	,742**	,522**	,742**	,742**	,542**	,522**	,061	,300	,259	1
	Sig. (2-tailed)	,067	,000	,001	,000	,000	,000	,001	,718	,067	,116	
	N	38	38	38	38	38	38	38	38	38	38	38

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

\* . Correlation is significant at the 0.05 level (2-tailed).

Lampiran 5  
Hasil Uji Validitas Lingkungan Kerja (X2)

		Correlations										
		q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	jumlah
q1	Pearson Correlation	1	-,071	,017	-,198	-,071	-,038	-,379*	,020	,108	,199	,209
	Sig. (2-tailed)		,673	,918	,232	,673	,823	,019	,905	,518	,231	,209
	N	38	38	38	38	38	38	38	38	38	38	38
q2	Pearson Correlation	-,071	1	,088	-,150	-,005	,032	,065	-,228	,091	,107	,319
	Sig. (2-tailed)	,673		,601	,367	,975	,848	,699	,169	,588	,524	,051
	N	38	38	38	38	38	38	38	38	38	38	38
q3	Pearson Correlation	,017	,088	1	,000	-,245	,142	-,186	,022	-,215	,098	,213
	Sig. (2-tailed)	,918	,601		1,000	,138	,395	,262	,894	,195	,558	,198
	N	38	38	38	38	38	38	38	38	38	38	38
q4	Pearson Correlation	-,198	-,150	,000	1	,050	-,332*	,000	,164	,202	,000	,262
	Sig. (2-tailed)	,232	,367	1,000		,765	,042	1,000	,326	,224	1,000	,113
	N	38	38	38	38	38	38	38	38	38	38	38
q5	Pearson Correlation	-,071	-,005	-,245	,050	1	-,356*	,279	-,009	,395*	-,175	,319
	Sig. (2-tailed)	,673	,975	,138	,765		,028	,090	,959	,014	,294	,051
	N	38	38	38	38	38	38	38	38	38	38	38
q6	Pearson Correlation	-,038	,032	,142	-,332*	-,356*	1	,109	,022	-,551**	,222	,040
	Sig. (2-tailed)	,823	,848	,395	,042	,028		,516	,894	,000	,180	,813
	N	38	38	38	38	38	38	38	38	38	38	38
q7	Pearson Correlation	-,379*	,065	-,186	,000	,279	,109	1	,251	,077	,013	,400*
	Sig. (2-tailed)	,019	,699	,262	1,000	,090	,516		,128	,648	,940	,013
	N	38	38	38	38	38	38	38	38	38	38	38
q8	Pearson Correlation	,020	-,228	,022	,164	-,009	,022	,251	1	-,183	,174	,389*
	Sig. (2-tailed)	,905	,169	,894	,326	,959	,894	,128		,271	,296	,016
	N	38	38	38	38	38	38	38	38	38	38	38
q9	Pearson Correlation	,108	,091	-,215	,202	,395*	-,551**	,077	-,183	1	-,012	,344*
	Sig. (2-tailed)	,518	,588	,195	,224	,014	,000	,648	,271		,943	,034
	N	38	38	38	38	38	38	38	38	38	38	38
q10	Pearson Correlation	,199	,107	,098	,000	-,175	,222	,013	,174	-,012	1	,514**
	Sig. (2-tailed)	,231	,524	,558	1,000	,294	,180	,940	,296	,943		,001
	N	38	38	38	38	38	38	38	38	38	38	38
jumlah	Pearson Correlation	,209	,319	,213	,262	,319	,040	,400*	,389*	,344*	,514**	1
	Sig. (2-tailed)	,209	,051	,198	,113	,051	,813	,013	,016	,034	,001	
	N	38	38	38	38	38	38	38	38	38	38	38

\*. Correlation is significant at the 0.05 level (2-tailed).

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

Lampiran 6  
Hasil Uji Validitas Produktivitas (Y)

		Correlations										
		q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	jumlah
q1	Pearson Correlation	1	-,018	,020	-,096	,008	-,204	-,128	,134	-,018	,020	,200
	Sig. (2-tailed)		,915	,904	,568	,963	,219	,445	,423	,915	,904	,228
	N	38	38	38	38	38	38	38	38	38	38	38
q2	Pearson Correlation	-,018	1	-,055	,345*	-,071	-,138	,239	-,037	1,000**	-,055	,588**
	Sig. (2-tailed)	,915		,745	,034	,673	,407	,149	,828	,000	,745	,000
	N	38	38	38	38	38	38	38	38	38	38	38
q3	Pearson Correlation	,020	-,055	1	-,070	,248	-,363*	-,051	,201	-,055	1,000**	,481**
	Sig. (2-tailed)	,904	,745		,677	,133	,025	,761	,226	,745	,000	,002
	N	38	38	38	38	38	38	38	38	38	38	38
q4	Pearson Correlation	-,096	,345*	-,070	1	-,006	,113	,260	-,047	,345*	-,070	,462**
	Sig. (2-tailed)	,568	,034	,677		,973	,499	,115	,781	,034	,677	,004
	N	38	38	38	38	38	38	38	38	38	38	38
q5	Pearson Correlation	,008	-,071	,248	-,006	1	-,035	-,233	,096	-,071	,248	,317
	Sig. (2-tailed)	,963	,673	,133	,973		,835	,160	,566	,673	,133	,053
	N	38	38	38	38	38	38	38	38	38	38	38
q6	Pearson Correlation	-,204	-,138	-,363*	,113	-,035	1	-,105	-,182	-,138	-,363*	-,093
	Sig. (2-tailed)	,219	,407	,025	,499	,835		,532	,273	,407	,025	,579
	N	38	38	38	38	38	38	38	38	38	38	38
q7	Pearson Correlation	-,128	,239	-,051	,260	-,233	-,105	1	,158	,239	-,051	,340*
	Sig. (2-tailed)	,445	,149	,761	,115	,160	,532		,344	,149	,761	,037
	N	38	38	38	38	38	38	38	38	38	38	38
q8	Pearson Correlation	,134	-,037	,201	-,047	,096	-,182	,158	1	-,037	,201	,410*
	Sig. (2-tailed)	,423	,828	,226	,781	,566	,273	,344		,828	,226	,011
	N	38	38	38	38	38	38	38	38	38	38	38
q9	Pearson Correlation	-,018	1,000**	-,055	,345*	-,071	-,138	,239	-,037	1	-,055	,588**
	Sig. (2-tailed)	,915	,000	,745	,034	,673	,407	,149	,828		,745	,000
	N	38	38	38	38	38	38	38	38	38	38	38
q10	Pearson Correlation	,020	-,055	1,000**	-,070	,248	-,363*	-,051	,201	-,055	1	,481**
	Sig. (2-tailed)	,904	,745	,000	,677	,133	,025	,761	,226	,745		,002
	N	38	38	38	38	38	38	38	38	38	38	38
jumlah	Pearson Correlation	,200	,588**	,481**	,462**	,317	-,093	,340*	,410*	,588**	,481**	1
	Sig. (2-tailed)	,228	,000	,002	,004	,053	,579	,037	,011	,000	,002	
	N	38	38	38	38	38	38	38	38	38	38	38

\*. Correlation is significant at the 0.05 level (2-tailed).

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

Lampiran 7  
Hasil Uji Reliabilitas Kedisiplinan (X1)

		N	%
Cases	Valid	38	100,0
	Excluded <sup>a</sup>	0	,0
	Total	38	100,0

a. Listwise deletion based on all variables in the procedure.

Cronbach's Alpha	N of Items
,700	11

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q1	77,95	44,862	,199	,698
q2	77,79	40,333	,687	,652
q3	77,82	42,857	,443	,677
q4	77,79	40,333	,687	,652
q5	77,79	40,333	,687	,652
q6	77,95	42,646	,465	,675
q7	77,82	42,857	,443	,677
q8	78,13	47,307	-,052	,721
q9	77,95	44,862	,199	,698
q10	78,03	45,161	,148	,703
jumlah	41,00	11,838	1,000	,605

Lampiran 8  
Hasil Uji Reliabilitas Lingkungan Kerja (X2)

		N	%
Cases	Valid	38	100,0
	Excluded <sup>a</sup>	0	,0
	Total	38	100,0

a. Listwise deletion based on all variables in the procedure.

Cronbach's Alpha	N of Items
,620	11

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
q1	77,53	17,013	,034	,535
q2	77,68	16,330	,152	,510
q3	77,53	17,013	,057	,528
q4	77,74	16,686	,090	,523
q5	77,68	16,330	,152	,510
q6	77,53	17,986	-,117	,559
q7	77,84	15,920	,249	,490
q8	77,66	16,015	,241	,492
q9	77,63	16,185	,180	,504
q10	77,68	15,357	,385	,464
jumlah	40,87	4,442	1,000	-,123 <sup>a</sup>

## Lampiran 9

## Hasil Uji Reliabilitas Produktivitas (Y)

**Case Processing Summary**

		N	%
Cases	Valid	38	100,0
	Excluded <sup>a</sup>	0	,0
	Total	38	100,0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
,628	11

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
q1	77,55	28,903	,065	,638
q2	77,26	25,767	,488	,580
q3	77,34	26,772	,373	,597
q4	77,42	26,953	,353	,600
q5	77,42	27,980	,189	,621
q6	77,61	31,381	-,230	,677
q7	77,29	27,887	,222	,617
q8	77,50	27,068	,280	,608
q9	77,26	25,767	,488	,580
q10	77,34	26,772	,373	,597
jumlah	40,74	7,496	1,000	,314

Lampiran 10  
Hasil Uji Normalitas

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,825 <sup>a</sup>	,681	,662	1,591

a. Predictors: (Constant), lingkungan kerja, kedisiplinan

b. Dependent Variable: produktivitas

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	188,795	2	94,397	37,301	,000 <sup>b</sup>
	Residual	88,574	35	2,531		
	Total	277,368	37			

a. Dependent Variable: produktivitas

b. Predictors: (Constant), lingkungan kerja, kedisiplinan

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9,231	5,234		1,764	,086
	Kedisiplinan	,614	,082	,772	7,463	,000
	lingkungan kerja	,155	,134	,119	1,150	,258

a. Dependent Variable: produktivitas

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	36,00	46,14	40,74	2,259	38
Residual	-4,140	2,628	,000	1,547	38
Std. Predicted Value	-2,098	2,392	,000	1,000	38
Std. Residual	-2,602	1,652	,000	,973	38

Lampiran 11  
Hasil Uji Linieritas Kedisiplinan Terhadap produktivitas

**Case Processing Summary**

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
produktivitas * kedisiplinan	38	100,0%	0	0,0%	38	100,0%



## Report

## Produktivitas

kedisiplinan	Mean	N	Std. Deviation
33	35,00	1	.
35	38,00	2	1,414
37	37,00	3	1,000
38	38,00	3	1,732
39	39,75	4	2,062
40	40,75	4	1,258
41	41,00	2	,000
42	41,50	6	1,517
43	41,50	4	1,732
44	42,00	3	2,000
45	45,00	3	1,000
46	45,00	1	.
47	45,00	1	.
48	42,00	1	.
Total	40,74	38	2,738

## ANOVA Table

	Sum of Squares	df	Mean Square	F	Sig.
(Combined)	219,368	13	16,874	6,983	,000
Between Groups Linearity	185,445	1	185,445	76,736	,000
produktivitas * kedisiplinan Deviation from Linearity	33,923	12	2,827	1,170	,357
Within Groups	58,000	24	2,417		
Total	277,368	37			

## Measures of Association

	R	R Squared	Eta	Eta Squared
produktivitas * kedisiplinan	,818	,669	,889	,791

## Lampiran 12

Hasil Uji Linieritas Lingkungan Kerja Terhadap produktivitas

## Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
produktivitas * lingkungan kerja	38	100,0%	0	0,0%	38	100,0%

### Report

#### Produktivitas

lingkungan kerja	Mean	N	Std. Deviation
37	40,00	2	1,414
38	38,00	3	1,732
39	39,67	3	2,309
40	39,29	7	2,563
41	41,27	11	2,149
42	41,00	6	3,795
43	44,00	4	1,826
45	42,00	1	.
48	42,00	1	.
Total	40,74	38	2,738

#### ANOVA Table

	Sum of Squares	df	Mean Square	F	Sig.
(Combined)	91,091	8	11,386	1,773	,124
Between Groups					
Linearity	47,857	1	47,857	7,450	,011
Deviation from Linearity	43,235	7	6,176	,962	,477
Within Groups	186,277	29	6,423		
Total	277,368	37			

#### Measures of Association

	R	R Squared	Eta	Eta Squared
produktivitas * lingkungan kerja	,415	,173	,573	,328

### Lampiran 13

#### Hasil Uji Multikolinieritas

#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,825 <sup>a</sup>	,681	,662	1,591

a. Predictors: (Constant), lingkungan kerja, kedisiplinan

b. Dependent Variable: produktivitas

#### ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1					
Regression	188,795	2	94,397	37,301	,000 <sup>b</sup>
Residual	88,574	35	2,531		
Total	277,368	37			

a. Dependent Variable: produktivitas

b. Predictors: (Constant), lingkungan kerja, kedisiplinan

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	9,231	5,234		1,764	,086		
1 kedisiplinan	,614	,082	,772	7,463	,000	,853	1,173
lingkungan kerja	,155	,134	,119	1,150	,258	,853	1,173

a. Dependent Variable: produktivitas

**Coefficient Correlations<sup>a</sup>**

Model		lingkungan kerja	kedisiplinan
1	Correlations	lingkungan kerja	1,000
		kedisiplinan	-,384
	Covariances	lingkungan kerja	,018
		kedisiplinan	-,004

a. Dependent Variable: produktivitas

**Collinearity Diagnostics<sup>a</sup>**

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	kedisiplinan	lingkungan kerja
1	1	2,995	1,000	,00	,00	,00
	2	,004	27,657	,13	,98	,07
	3	,001	48,390	,87	,02	,93

a. Dependent Variable: produktivitas

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	36,00	46,14	40,74	2,259	38
Residual	-4,140	2,628	,000	1,547	38
Std. Predicted Value	-2,098	2,392	,000	1,000	38
Std. Residual	-2,602	1,652	,000	,973	38

a. Dependent Variable: produktivitas

## Lampiran 14

## Hasil Uji Regresi Linier Sederhana

- Kedisiplinan (X1) Terhadap (Y)

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	Kedisiplinan <sup>b</sup>	.	Enter

a. Dependent Variable: Produktivitas

b. All requested variables entered.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,818 <sup>a</sup>	,669	,659	1,598

a. Predictors: (Constant), Kedisiplinan

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	185,445	1	185,445	72,626	,000 <sup>b</sup>
	Residual	91,923	36	2,553		
	Total	277,368	37			

a. Dependent Variable: Produktivitas

b. Predictors: (Constant), Kedisiplinan

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14,059	3,141		4,476	,000
	Kedisiplinan	,651	,076	,818	8,522	,000

a. Dependent Variable: Produktivitas

- Lingkungan Kerja (X2) Terhadap (Y)

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	Lingkungan Kerja <sup>b</sup>	.	Enter

a. Dependent Variable: Produktivitas

b. All requested variables entered.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,415 <sup>a</sup>	,173	,150	2,525

a. Predictors: (Constant), Lingkungan Kerja

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47,857	1	47,857	7,507	,010 <sup>b</sup>
	Residual	229,512	36	6,375		
	Total	277,368	37			

a. Dependent Variable: Produktivitas

b. Predictors: (Constant), Lingkungan Kerja

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18,683	8,060		2,318	,026
	Lingkungan Kerja	,540	,197	,415	2,740	,010

a. Dependent Variable: Produktivitas

### Lampiran 15 Hasil Uji Regresi Linier Berganda

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,825 <sup>a</sup>	,681	,662	1,591

a. Predictors: (Constant), lingkungan kerja, kedisiplinan

b. Dependent Variable: produktivitas

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	188,795	2	94,397	37,301	,000 <sup>b</sup>
	Residual	88,574	35	2,531		
	Total	277,368	37			

a. Dependent Variable: produktivitas

b. Predictors: (Constant), lingkungan kerja, kedisiplinan

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	9,231	5,234		1,764	,086
	kedisiplinan	,614	,082	,772	7,463	,000
	lingkungan kerja	,155	,134	,119	1,150	,258

a. Dependent Variable: produktivitas

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	36,00	46,14	40,74	2,259	38
Residual	-4,140	2,628	,000	1,547	38
Std. Predicted Value	-2,098	2,392	,000	1,000	38
Std. Residual	-2,602	1,652	,000	,973	38

a. Dependent Variable: produktivitas

Lampiran 16  
Hasil Uji T (Parsial) Kedisiplinan Terhadap Produktivitas

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,818 <sup>a</sup>	,669	,659	1,598

- a. Predictors: (Constant), kedisiplinan  
b. Dependent Variable: produktivitas

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	185,445	1	185,445	72,626	,000 <sup>b</sup>
	Residual	91,923	36	2,553		
	Total	277,368	37			

- a. Dependent Variable: produktivitas  
b. Predictors: (Constant), kedisiplinan

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14,059	3,141		4,476	,000
	kedisiplinan	,651	,076	,818	8,522	,000

- a. Dependent Variable: produktivitas

**Residual Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	35,53	45,29	40,74	2,239	38
Residual	-3,292	2,660	,000	1,576	38
Std. Predicted Value	-2,325	2,035	,000	1,000	38
Std. Residual	-2,060	1,665	,000	,986	38

- a. Dependent Variable: produktivitas

Lampiran 17  
Hasil Uji T (Parsial) Lingkungan Kerja Terhadap Produktivitas

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	lingkungan kerja <sup>b</sup>	.	Enter

- a. Dependent Variable: produktivitas

b. All requested variables entered.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,415 <sup>a</sup>	,173	,150	2,525

a. Predictors: (Constant), lingkungan kerja

b. Dependent Variable: produktivitas

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47,857	1	47,857	7,507	,010 <sup>b</sup>
	Residual	229,512	36	6,375		
	Total	277,368	37			

a. Dependent Variable: produktivitas

b. Predictors: (Constant), lingkungan kerja

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18,683	8,060		2,318	,026
	lingkungan kerja	,540	,197	,415	2,740	,001

a. Dependent Variable: produktivitas

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	38,65	44,59	40,74	1,137	38
Residual	-6,347	4,192	,000	2,491	38
Std. Predicted Value	-1,836	3,384	,000	1,000	38
Std. Residual	-2,514	1,660	,000	,986	38

a. Dependent Variable: produktivitas

## Lampiran 18

### Hasil Uji F (Simultan) Kedisiplinan dan Lingkungan Kerja Terhadap Produktivitas

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,825 <sup>a</sup>	,681	,662	1,591

a. Predictors: (Constant), Lingkungan kerja, kedisiplinan

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	188,795	2	94,397	37,301	,000 <sup>b</sup>
	Residual	88,574	35	2,531		
	Total	277,368	37			

a. Dependent Variable: Produktivitas

b. Predictors: (Constant), Lingkungan kerja, kedisiplinan

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9,231	5,234		1,764	,086
	kedisiplinan	,614	,082	,772	7,463	,000
	Lingkungan kerja	,155	,134	,119	1,150	,258

a. Dependent Variable: Produktivitas



Lampiran 19  
Format Kuesioner

**PERNYATAAN**

**PRODUKTIVITAS KERJA (Y)**

<b>NO</b>	<b>INDIKATOR</b>	<b>PERTANYAAN</b>	<b>SS 5</b>	<b>S 4</b>	<b>RR 3</b>	<b>TS 2</b>	<b>STS 1</b>
1.	Tingkat absensi tinggi	Saya sering terlambat masuk kerja.					
2.		Kehadiran merupakan faktor yang penting dalam menyelesaikan pekerjaan.					
3.	Tingkat perolehan hasil	Hasil kerja saya selalu memenuhi jumlah standar yang telah ditetapkan.					
4.		Dalam melaksanakan pekerjaan saya selalu berusaha dan berfikir keras untuk mencapai target yang ditetapkan oleh perusahaan.					
5.	Kualitas yang dihasilkan	Saya merasa bahwa pekerjaan saya selama ini sesuai dengan kualitas yang ditentukan oleh perusahaan.					
6.		Saya selalu berusaha untuk meningkatkan kualitas kerja saya.					
7.	Tingkat kesalahan	Saya Merasa Tidak Pernah Melakukan Kesalahan Dalam Bekerja					
8.		Saya selalu berusaha fokus dalam bekerja untuk meminimalisir kesalahan yang saya buat.					
9.	Waktu yang dibutuhkan	Saya merasa cukup dengan standard waktu yang ditentukan untuk kesempurnaan hasil kerja.					
10.		Saya akan tetap melaksanakan pekerjaan dengan segera walaupun tidak dituntut diselesaikan secepatnya					

**KEDISIPLINAN (X1)**

<b>NO</b>	<b>INDIKATOR</b>	<b>PERTANYAAN</b>	<b>SS 5</b>	<b>S 4</b>	<b>RR 3</b>	<b>TS 2</b>	<b>STS 1</b>
1.	Teladan pimpinan	Pimpinan selalu datang lebih awal dari karyawannya					
2.		saya merasa pimpinan selalu menunjukkan sikap yang tegas dalam hal kedisiplinan					
3.	Balas jasa	Saya akan selalu ikut andil dalam setiap kegiatan perusahaan.					
4.		Saya akan memberikan kontribusi dalam bentuk tenaga waktu dan pemikiran					
5.	Keadilan	Pimpinan selalu mengutamakan asas kemanusiaan dalam perusahaan					
6.		Pemimpin dapat adil dalam memberikan punishment dan reward.					
7.	Waskat	Pengawasan yang dilakukan pimpinan membuat saya mersa tertekan.					
8.		Saya tidak terganggu diadakan pengawasan ketat jika untuk mendorong karyawan menjadi lebih baik.					
9.	Ketegasan	Pimpinan akan berlaku tegas dalam memberian sangsi bagi karyawan yang memiliki tingkat ketidakhadiran yang tinggi.					
10.	Sanksi hukuman	Saya siap menerima sangsi keras yang sesuai peraturan perusahaan jika saya melakukan tindakan indisipliner (melanggar kedisiplinan kerja).					

**LINGKUNGAN KERJA (X2)**

<b>NO</b>	<b>PERTANYAAN</b>	<b>SS 5</b>	<b>S 4</b>	<b>KS 3</b>	<b>TS 2</b>	<b>STS 1</b>
1.	Menurut saya kondisi kursi, meja dan sarana lainnya dalam kondisi baik dan dapat digunakan					
2.	Temperatur atau suhu di ruangan kerja ideal					
3.	Kelembaban udara pada perusahaan ini baik					
4.	Sirkulasi udara pada perusahaan ini memungkinkan untuk bekerja dengan optimal.					
5.	Pencahayaan pada ruang kerja di perusahaan ini terang.					
6.	Tingkat kebisingan pada perusahaan ini tidak mengganggu pekerjaan saya.					
7.	Hubungan kerja antara atasan dengan bawahan berjalan dengan baik					
8.	Hubungan dengan rekan sekerja pada perusahaan ini berjalan dengan lancar					
9.	Hubungan komunikasi dengan atasan selama ini berjalan dengan baik					
10.	Hubungan komunikasi dengan rekan sekerja jarang terhambat					

## Lampiran 20

## Jawaban Hasil Kuesioner

Kedisiplinan (x1)											
responden	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	jumlah
1	4	5	5	5	5	4	5	3	4	3	43
2	3	4	3	4	4	3	3	4	3	4	35
3	4	4	4	4	4	4	4	3	4	5	40
4	5	5	5	5	5	5	5	4	5	4	48
5	4	3	4	3	3	4	4	5	4	3	37
6	3	4	5	4	4	4	5	4	3	4	40
7	4	4	4	4	4	3	4	3	4	5	39
8	5	5	3	5	5	4	3	3	5	4	42
9	4	5	4	5	5	5	4	3	4	3	42
10	4	4	5	4	4	5	5	4	4	3	42
11	4	3	4	3	3	3	4	2	4	3	33
12	5	4	3	4	4	4	3	5	5	3	40
13	2	5	4	5	5	5	4	4	2	4	40
14	3	5	5	5	5	5	5	3	3	3	42
15	4	4	4	4	4	3	4	4	4	4	39
16	3	5	5	5	5	4	5	4	3	4	43
17	4	5	4	5	5	4	4	5	4	4	44
18	5	4	3	4	4	5	3	4	5	5	42
19	5	5	4	5	5	4	4	3	5	5	45
20	4	4	5	4	4	3	5	4	4	5	42
21	3	3	4	3	3	4	4	4	3	4	35
22	4	5	4	5	5	5	4	5	4	3	44
23	5	4	4	4	4	4	4	4	5	3	41
24	4	5	5	5	5	4	5	3	4	5	45
25	4	3	4	3	3	3	4	5	4	4	37
26	4	4	3	4	4	4	3	4	4	3	37
27	4	5	4	5	5	4	4	3	4	5	43
28	5	4	5	4	4	5	5	4	5	5	46
29	4	3	4	3	3	5	4	4	4	5	39
30	4	5	4	5	5	4	4	5	4	3	43
31	5	4	3	4	4	3	3	4	5	4	39
32	5	3	4	3	3	4	4	3	5	4	38
33	4	5	5	5	5	4	5	3	4	4	44
34	4	4	4	4	4	3	4	4	4	3	38
35	4	3	4	3	3	4	4	5	4	4	38
36	3	4	5	4	4	4	5	4	3	5	41
37	4	5	5	5	5	5	5	5	4	4	47
38	5	4	5	4	4	4	5	4	5	5	45
Total	154	160	159	160	160	154	159	147	154	151	1558

lingkungan kerja (x2)											
responden	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	jumlah
1	5	4	5	3	4	5	3	4	3	4	40
2	4	3	4	4	5	5	4	4	4	4	41
3	4	4	4	5	4	3	5	4	5	3	41
4	5	5	5	5	5	4	4	5	5	5	48
5	3	4	3	5	4	5	5	4	4	5	42
6	4	3	4	4	5	4	4	5	4	4	41
7	4	4	5	3	4	5	4	4	3	4	40
8	5	5	4	4	3	4	3	3	4	4	39
9	5	4	5	5	4	3	3	4	5	5	43
10	4	4	4	4	5	4	4	5	4	4	42
11	3	4	5	5	4	5	5	4	3	4	42
12	4	5	5	4	5	4	4	3	4	3	41
13	5	2	4	3	4	4	3	4	4	4	37
14	5	3	3	4	5	4	4	4	5	4	41
15	4	4	4	5	4	5	5	5	4	5	45
16	5	3	5	4	3	4	4	5	4	5	42
17	5	4	4	4	3	5	3	5	3	4	40
18	4	5	3	3	5	4	5	4	4	4	41
19	5	5	4	3	5	4	4	3	5	5	43
20	4	4	5	4	5	3	4	4	5	3	41
21	3	3	5	5	4	4	4	4	4	4	40
22	5	4	4	4	4	4	4	5	3	4	41
23	4	5	5	3	3	5	3	4	3	5	40
24	5	4	4	4	4	4	4	4	4	4	41
25	3	4	4	5	5	3	3	3	5	3	38
26	4	4	3	4	4	4	4	4	5	4	40
27	5	4	4	3	4	5	5	4	5	4	43
28	4	5	5	4	3	4	4	5	4	5	43
29	3	4	4	5	3	4	3	4	4	4	38
30	5	4	4	4	3	5	3	3	3	3	37
31	4	5	5	3	3	5	4	3	5	4	41
32	3	5	4	3	4	5	4	4	4	4	40
33	5	4	4	4	4	4	3	3	5	5	41
34	4	4	3	4	4	3	4	4	4	4	38
35	3	4	4	3	4	4	5	5	4	3	39
36	4	3	5	4	3	5	4	4	3	4	39
37	5	4	4	5	4	4	3	5	5	3	42
38	4	5	4	4	5	4	4	4	4	4	42
Total	160	154	160	152	154	160	148	155	156	154	1553

Produktivitas (y)											
responden	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	jumlah
1	5	5	4	4	4	3	5	3	5	4	42
2	4	4	5	3	3	4	3	4	4	5	39
3	5	4	4	4	4	3	4	5	4	4	41
4	3	5	3	5	5	4	5	4	5	3	42
5	4	3	4	4	4	5	4	3	3	4	38
6	5	4	3	4	3	4	5	4	4	3	39
7	4	4	3	3	4	3	4	5	4	3	37
8	4	5	4	4	5	3	3	4	5	4	41
9	3	5	5	5	4	3	4	3	5	5	42
10	5	4	4	5	4	4	5	3	4	4	42
11	3	3	5	3	4	2	4	3	3	5	35
12	4	4	5	4	5	5	3	3	4	5	42
13	4	5	4	5	2	4	4	4	5	4	41
14	3	5	4	5	3	3	5	3	5	4	40
15	5	4	5	3	4	4	4	4	4	5	42
16	4	5	4	4	3	4	5	4	5	4	42
17	3	5	4	4	4	5	4	4	5	4	42
18	4	4	5	5	5	4	3	5	4	5	44
19	5	5	5	4	5	3	4	5	5	5	46
20	3	4	4	3	4	4	5	5	4	4	40
21	4	3	4	4	3	4	4	4	3	4	37
22	3	5	3	5	4	5	4	3	5	3	40
23	5	4	4	4	5	4	4	3	4	4	41
24	4	5	5	4	4	3	5	5	5	5	45
25	3	3	4	3	4	5	4	4	3	4	37
26	4	4	3	4	4	4	3	3	4	3	36
27	5	5	4	4	4	3	4	5	5	4	43
28	3	4	5	5	5	4	5	5	4	5	45
29	4	3	4	5	4	4	4	5	3	4	40
30	3	5	3	4	4	5	4	3	5	3	39
31	5	4	4	3	5	4	3	4	4	4	40
32	4	3	5	4	5	3	4	4	3	5	40
33	4	5	5	4	4	3	5	4	5	5	44
34	3	4	4	3	4	4	4	3	4	4	37
35	4	3	3	4	4	5	4	4	3	3	37
36	4	4	4	4	3	4	5	5	4	4	41
37	4	5	4	5	4	5	5	4	5	4	45
38	3	4	5	4	5	4	5	5	4	5	44
Total	149	160	157	154	154	147	159	151	160	157	1548

DISTRIBUSI NILAI  $r_{\text{tabel}}$  SIGNIFIKANSI 5% dan 1%

N	The Level of Significance		N	The Level of Significance	
	5%	1%		5%	1%
3	0.997	0.999	38	0.32	0.413
4	0.95	0.99	39	0.316	0.408
5	0.878	0.959	40	0.312	0.403
6	0.811	0.917	41	0.308	0.398
7	0.754	0.874	42	0.304	0.393
8	0.707	0.834	43	0.301	0.389
9	0.666	0.798	44	0.297	0.384
10	0.632	0.765	45	0.294	0.38
11	0.602	0.735	46	0.291	0.376
12	0.576	0.708	47	0.288	0.372
13	0.553	0.684	48	0.284	0.368
14	0.532	0.661	49	0.281	0.364
15	0.514	0.641	50	0.279	0.361
16	0.497	0.623	55	0.266	0.345
17	0.482	0.606	60	0.254	0.33
18	0.468	0.59	65	0.244	0.317
19	0.456	0.575	70	0.235	0.306
20	0.444	0.561	75	0.227	0.296
21	0.433	0.549	80	0.22	0.286
22	0.432	0.537	85	0.213	0.278
23	0.413	0.526	90	0.207	0.267
24	0.404	0.515	95	0.202	0.263
25	0.396	0.505	100	0.195	0.256
26	0.388	0.496	125	0.176	0.23
27	0.381	0.487	150	0.159	0.21
28	0.374	0.478	175	0.148	0.194
29	0.367	0.47	200	0.138	0.181
30	0.361	0.463	300	0.113	0.148
31	0.355	0.456	400	0.098	0.128
32	0.349	0.449	500	0.088	0.115
33	0.344	0.442	600	0.08	0.105
34	0.339	0.436	700	0.074	0.097
35	0.334	0.43	800	0.07	0.091
36	0.329	0.424	900	0.065	0.086
37	0.325	0.418	1000	0.062	0.081

## DISTRIBUSI NILAI $t_{\text{tabel}}$

d.f	t(D.10)	t(D.05)	t(D.025)	t(D.01)	t(D.005)
1	3.078	6.314	12.71	31.82	63.66
2	1.886	2.920	4.303	6.965	9.925
3	1.638	2.353	3.182	4.541	5.841
4	1.533	2.132	2.776	3.747	4.604
5	1.476	2.015	2.571	3.365	4.032
6	1.440	1.943	2.447	3.143	3.707
7	1.415	1.895	2.365	2.998	3.499
8	1.397	1.860	2.306	2.896	3.355
9	1.383	1.833	2.262	2.821	3.250
10	1.372	1.812	2.228	2.764	3.169
11	1.363	1.796	2.201	2.718	3.106
12	1.356	1.782	2.179	2.681	3.055
13	1.350	1.771	2.160	2.650	3.012
14	1.345	1.761	2.145	2.624	2.977
15	1.341	1.753	2.131	2.602	2.947
16	1.337	1.746	2.120	2.583	2.921
17	1.333	1.740	2.110	2.567	2.898
18	1.330	1.734	2.101	2.552	2.878
19	1.328	1.729	2.093	2.539	2.861
20	1.325	1.725	2.086	2.528	2.845
21	1.323	1.721	2.080	2.518	2.831
22	1.321	1.717	2.074	2.508	2.819
23	1.319	1.714	2.069	2.500	2.807
24	1.318	1.711	2.064	2.492	2.797
25	1.316	1.708	2.060	2.485	2.787
26	1.315	1.706	2.056	2.479	2.779
27	1.314	1.703	2.052	2.473	2.771
28	1.313	1.701	2.048	2.467	2.763
29	1.311	1.699	2.045	2.462	2.756
30	1.310	1.697	2.042	2.457	2.750
31	1.309	1.696	2.040	2.453	2.744
32	1.309	1.694	2.037	2.449	2.738
33	1.308	1.692	2.035	2.445	2.733
34	1.307	1.691	2.032	2.441	2.728
35	1.306	1.690	2.030	2.438	2.724
36	1.306	1.688	2.028	2.434	2.719

d.f	t0.10	t0.05	t(D.025)	t0.01	t(D.005)
61	1.296	1.671	2.000	2.390	2.659
62	1.296	1.671	1.999	2.389	2.659
63	1.296	1.670	1.999	2.389	2.658
64	1.296	1.670	1.999	2.388	2.657
65	1.296	1.670	1.998	2.388	2.657
66	1.295	1.670	1.998	2.387	2.656
67	1.295	1.670	1.998	2.387	2.655
68	1.295	1.670	1.997	2.386	2.655
69	1.295	1.669	1.997	2.386	2.654
70	1.295	1.669	1.997	2.385	2.653
71	1.295	1.669	1.996	2.385	2.653
72	1.295	1.669	1.996	2.384	2.652
73	1.295	1.669	1.996	2.384	2.651
74	1.295	1.668	1.995	2.383	2.651
75	1.295	1.668	1.995	2.383	2.650
76	1.294	1.668	1.995	2.382	2.649
77	1.294	1.668	1.994	2.382	2.649
78	1.294	1.668	1.994	2.381	2.648
79	1.294	1.668	1.994	2.381	2.647
80	1.294	1.667	1.993	2.380	2.647
81	1.294	1.667	1.993	2.380	2.646
82	1.294	1.667	1.993	2.379	2.645
83	1.294	1.667	1.992	2.379	2.645
84	1.294	1.667	1.992	2.378	2.644
85	1.294	1.666	1.992	2.378	2.643
86	1.293	1.666	1.991	2.377	2.643
87	1.293	1.666	1.991	2.377	2.642
88	1.293	1.666	1.991	2.376	2.641
89	1.293	1.666	1.990	2.376	2.641
90	1.293	1.666	1.990	2.375	2.640
91	1.293	1.665	1.990	2.374	2.639
92	1.293	1.665	1.989	2.374	2.639
93	1.293	1.665	1.989	2.373	2.638
94	1.293	1.665	1.989	2.373	2.637
95	1.293	1.665	1.988	2.372	2.637
96	1.292	1.664	1.988	2.372	2.636



d.f	t(D.10)	t(D.05)	t(D.025)	t(D.01)	t(D.005)
37	1.305	1.687	2.026	2.431	2.715
38	1.304	1.686	2.024	2.429	2.712
39	1.304	1.685	2.023	2.426	2.708
40	1.303	1.684	2.021	2.423	2.704
41	1.303	1.683	2.020	2.421	2.701
42	1.302	1.682	2.018	2.418	2.698
43	1.302	1.681	2.017	2.416	2.695
44	1.301	1.680	2.015	2.414	2.692
45	1.301	1.679	2.014	2.412	2.690
46	1.300	1.679	2.013	2.410	2.687
47	1.300	1.678	2.012	2.408	2.685
48	1.299	1.677	2.011	2.407	2.682
49	1.299	1.677	2.010	2.405	2.680
50	1.299	1.676	2.009	2.403	2.678
51	1.298	1.675	2.008	2.402	2.676
52	1.298	1.675	2.007	2.400	2.674
53	1.298	1.674	2.006	2.399	2.672
54	1.297	1.674	2.005	2.397	2.670
55	1.297	1.673	2.004	2.396	2.668
56	1.297	1.673	2.003	2.395	2.667
57	1.297	1.672	2.002	2.394	2.665
58	1.296	1.672	2.002	2.392	2.663
59	1.296	1.671	2.001	2.391	2.662
60	1.296	1.671	2.000	2.390	2.660

d.f	t0.10	t0.05	t(D.025)	t0.01	t(D.005)
97	1.292	1.664	1.988	2.371	2.635
98	1.292	1.664	1.987	2.371	2.635
99	1.292	1.664	1.987	2.370	2.634
100	1.292	1.664	1.987	2.370	2.633
101	1.292	1.663	1.986	2.369	2.633
102	1.292	1.663	1.986	2.369	2.632
103	1.292	1.663	1.986	2.368	2.631
104	1.292	1.663	1.985	2.368	2.631
105	1.292	1.663	1.985	2.367	2.630
106	1.291	1.663	1.985	2.367	2.629
107	1.291	1.662	1.984	2.366	2.629
108	1.291	1.662	1.984	2.366	2.628
109	1.291	1.662	1.984	2.365	2.627
110	1.291	1.662	1.983	2.365	2.627
111	1.291	1.662	1.983	2.364	2.626
112	1.291	1.661	1.983	2.364	2.625
113	1.291	1.661	1.982	2.363	2.625
114	1.291	1.661	1.982	2.363	2.624
115	1.291	1.661	1.982	2.362	2.623
116	1.290	1.661	1.981	2.362	2.623
117	1.290	1.661	1.981	2.361	2.622
118	1.290	1.660	1.981	2.361	2.621
119	1.290	1.660	1.980	2.360	2.621
120	1.290	1.660	1.980	2.360	2.620

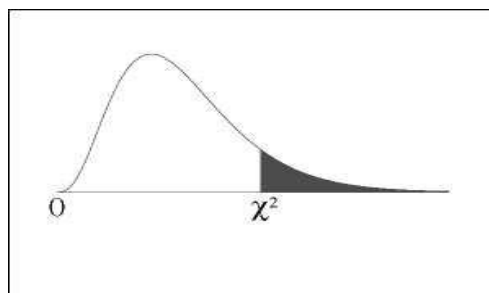
Dari "Table of Percentage Points of the t-Distribution." Biometrika, Vol. 32. (1941), p. 300. Reproduced by permission of the Biometrika Trustess.

**DISTRIBUTION TABEL NILAI  $F_{0,05}$**   
**DEGREES OF FREEDOM FOR NOMINATOR**

	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	
1	161	200	216	225	230	234	237	239	241	242	244	246	248	249	250	2
2	18,5	19,0	19,2	19,2	19,3	19,3	19,4	19,4	19,4	19,4	19,4	19,4	19,4	19,5	19,5	1
3	10,1	9,55	9,28	9,12	9,01	8,94	8,89	8,85	8,81	8,79	8,74	8,70	8,66	8,64	8,62	8,
4	7,71	6,94	6,59	6,39	6,26	6,16	6,09	6,04	6,00	5,96	5,91	5,86	5,80	5,77	5,75	5,
5	6,61	5,79	5,41	5,19	5,05	4,95	4,88	4,82	4,77	4,74	4,68	4,62	4,56	4,53	4,50	4,
6	5,99	5,14	4,76	4,53	4,39	4,28	4,21	4,15	4,10	4,06	4,00	3,94	3,87	3,84	3,81	3,
7	5,59	4,74	4,35	4,12	3,97	3,87	3,79	3,73	3,68	3,64	3,57	3,51	3,44	3,41	3,38	3,
8	5,32	4,46	4,07	3,84	4,69	3,58	3,50	3,44	3,39	3,35	3,28	3,22	3,15	3,12	3,08	3,
9	5,12	4,26	3,86	3,63	3,48	3,37	3,29	3,23	3,18	3,14	3,07	3,01	2,94	2,90	2,86	2,
10	4,96	4,10	3,71	3,48	3,33	3,22	3,14	3,07	3,02	2,98	2,91	2,85	2,77	2,74	2,70	2,
11	4,84	3,98	3,59	3,36	3,20	3,09	3,01	2,95	2,90	2,85	2,79	2,72	2,65	2,61	2,57	2,
12	4,75	3,89	3,49	3,26	3,11	3,00	2,91	2,85	2,80	2,75	2,69	2,62	2,54	2,51	2,47	2,
13	4,67	3,81	3,41	3,13	3,03	2,92	2,83	2,77	2,71	2,67	2,60	2,53	2,46	2,42	2,38	2,
14	4,60	3,74	3,34	3,11	2,96	2,85	2,76	2,70	2,65	2,60	2,53	2,46	2,39	2,35	2,31	2,
15	4,54	3,68	3,29	3,06	2,90	2,79	2,71	2,64	6,59	2,54	2,48	2,40	2,33	2,29	2,25	2,
16	4,49	3,63	3,24	3,01	2,85	2,74	2,66	2,59	2,54	2,49	2,42	2,35	2,28	2,24	2,19	2,
17	4,45	3,59	3,20	2,96	2,81	2,70	2,61	2,55	2,49	2,45	2,38	2,31	2,23	2,19	2,15	2,
18	4,41	3,55	3,16	2,93	2,77	2,66	2,58	2,51	2,46	2,41	2,34	2,27	2,19	2,15	2,11	2,
19	4,38	3,52	3,13	2,90	2,74	2,63	2,54	2,48	2,42	2,38	2,31	2,23	2,16	2,11	2,07	2,
20	4,35	3,49	3,10	2,87	2,71	2,60	2,51	2,45	2,39	2,35	2,28	2,20	2,12	2,08	2,04	1,
21	4,32	3,47	3,07	2,84	2,68	2,57	2,49	2,42	2,37	2,32	2,25	2,18	2,10	2,05	2,01	1,
22	4,30	3,44	3,05	2,82	2,66	2,55	2,46	2,40	2,34	2,30	2,23	2,15	2,07	2,03	1,98	1,
23	4,28	3,42	3,03	2,80	2,64	2,53	2,44	2,37	2,32	2,27	2,20	2,13	2,05	2,01	1,96	1,
24	4,26	3,40	3,01	2,78	2,62	2,51	2,42	2,36	2,30	2,25	2,18	2,11	2,03	1,98	1,94	1,
25	4,24	3,39	2,99	2,76	2,60	2,49	2,40	2,34	2,28	2,24	2,16	2,09	2,01	1,96	1,92	1,
30	4,17	3,32	2,92	2,69	2,53	2,42	2,33	2,27	2,21	2,16	2,09	2,01	1,93	1,89	1,84	1,
40	4,08	3,23	2,84	2,61	2,45	2,34	2,25	2,18	2,12	2,08	<b>2,00</b>	<b>1,92</b>	1,84	1,79	1,74	1,
50	4,08	<b>3,18</b>	2,79	2,56	2,40	2,29	2,20	2,13	2,07	2,02	1,95	1,87	1,78	1,74	1,69	1,
60	4,00	3,15	2,76	2,53	2,37	2,25	2,17	2,10	2,04	1,99	1,92	1,84	1,75	1,70	1,65	1,

100	3,94	3,09	2,70	2,46	2,30	2,19	2,10	2,03	1,97	1,92	1,85	1,80	1,68	1,63	1,57	1,
120	3,92	3,07	2,68	2,45	2,29	2,18	2,09	2,02	1,96	1,91	1,83	1,75	1,66	1,61	1,55	1,
∞	3,84	3,00	2,60	2,37	2,21	2,10	2,01	1,94	1,88	1,83	1,75	1,67	1,57	1,52	1,46	1,

## Chi-Square Distribution Table



The shaded area is equal to  $\alpha$  for  $\chi^2 = \chi^2_{\alpha}$ .

df	X <sup>2</sup> <sub>995</sub>	X <sup>2</sup> <sub>990</sub>	X <sup>2</sup> <sub>975</sub>	X <sup>2</sup> <sub>950</sub>	X <sup>2</sup> <sub>900</sub>	X <sup>2</sup> <sub>100</sub>	X <sup>2</sup> <sub>050</sub>	X <sup>2</sup> <sub>025</sub>	X <sup>2</sup> <sub>010</sub>
1	0.000	0.000	0.001	0.004	0.016	2.706	3.841	5.024	6.635
2	0.010	0.020	0.051	0.103	0.211	4.605	5.991	7.378	9.000
3	0.072	0.115	0.216	0.352	0.584	6.251	7.815	9.348	12.838
4	0.207	0.297	0.484	0.711	1.064	7.779	9.488	11.143	14.860
5	0.412	0.554	0.831	1.145	1.610	9.236	11.070	12.833	16.750
6	0.676	0.872	1.237	1.635	2.204	10.645	12.592	14.449	18.548
7	0.989	1.239	1.690	2.167	2.833	12.017	14.067	16.013	20.278
8	1.344	1.646	2.180	2.733	3.490	13.362	15.507	17.535	22.027
9	1.735	2.088	2.700	3.325	4.168	14.684	16.919	19.023	23.589
10	2.156	2.558	3.247	3.940	4.865	15.987	18.307	20.483	25.188
11	2.603	3.053	3.816	4.575	5.578	17.275	19.675	21.920	26.751
12	3.074	3.571	4.404	5.226	6.304	18.549	21.026	23.337	28.301

<i>df</i>	X <sup>2</sup> 995	X <sup>2</sup> 990	X <sup>2</sup> 975	X <sup>9</sup> 50	X <sup>9</sup> 00	x <sup>2</sup> 100	X <sup>0</sup> 50	X <sup>0</sup> 25	x
13	3.565	4.107	5.009	5.892	7.042	19.812	22.362	24.736	2
14	4.075	4.660	5.629	6.571	7.790	21.064	23.685	26.119	2
15	4.601	5.229	6.262	7.261	8.547	22.307	24.996	27.488	3
16	5.142	5.812	6.908	7.962	9.312	23.542	26.296	28.845	3
17	5.697	6.408	7.564	8.672	10.08 5	24.769	27.587	30.191	3
18	6.265	7.015	8.231	9.390	10.86 5	25.989	28.869	31.526	3
19	6.844	7.633	8.907	10.11 7	11.65 1	27.204	30.144	32.852	3
20	7.434	8.260	9.591	10.85 1	12.44 3	28.412	31.410	34.170	3
21	8.034	8.897	10.28 3	11.59 1	13.24 0	29.615	32.671	35.479	3
22	8.643	9.542	10.98 2	12.33 8	14.04 1	30.813	33.924	36.781	4
23	9.260	10.19 6	11.68 9	13.09 1	14.84 8	32.007	35.172	38.076	4
24	9.886	10.85 6	12.40 1	13.84 8	15.65 9	33.196	36.415	39.364	4
25	10.52 0	11.52 4	13.12 0	14.61 1	16.47 3	34.382	37.652	40.646	4
26	11.16 0	12.19 8	13.84 4	15.37 9	17.29 2	35.563	38.885	41.923	4
27	11.80 8	12.87 9	14.57 3	16.15 1	18.11 4	36.741	40.113	43.195	4
28	12.46 1	13.56 5	15.30 8	16.92 8	18.93 9	37.916	41.337	44.461	4
29	13.12 1	14.25 6	16.04 7	17.70 8	19.76 8	39.087	42.557	45.722	4
30	13.78	14.95	16.79	18.49	20.59	40.256	43.773	46.979	5

	7	3	1	3	9				
40	20.70 7	22.16 4	24.43 3	26.50 9	29.05 1	51.805	55.758	59.342	6
50	27.99 1	29.70 7	32.35 7	34.76 4	37.68 9	63.167	67.505	71.420	7
60	35.53 4	37.48 5	40.48 2	43.18 8	46.45 9	74.397	79.082	83.298	8
70	43.27 5	45.44 2	48.75 8	51.73 9	55.32 9	85.527	90.531	95.023	10
80	51.17 2	53.54 0	57.15 3	60.39 1	64.27 8	96.578	101.87 9	106.62 9	11
90	59.19 6	61.75 4	65.64 7	69.12 6	73.29 1	107.56 5	113.14 5	118.13 6	12
100	67.32 8	70.06 5	74.22 2	77.92 9	82.35 8	118.49 8	124.34 2	129.56 1	13