

## **BAB V**

### **KESIMPULAN DAN SARAN**

#### **A. Kesimpulan**

Kesimpulan yang didapat berdasarkan hasil penelitian adalah:

Formula tablet nifedipin dengan konsentrasi PVP K-30 5%, 7,5% , 10% dapat menghasilkan tablet dengan kekerasan tinggi dan kerapuhan rendah. Formula tablet nifedipin dengan konsentrasi PVP K-30 5% menghasilkan waktu hancur lebih cepat dibanding formula yang lain.

#### **B. Saran**

Saran yang didapat dari hasil pembuatan sediaan tablet nifedipin adalah:

Perlu dilakukan penelitian lebih lanjut dengan formula ini dengan melakukan uji disolusi untuk mengetahui berapa jumlah nifedipin yang dapat dilepaskan dari sediaan tablet.

## DAFTAR PUSTAKA

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**Lampiran 1. Data susut pengeringan granul**

## Susut pengeringan granul

Berat (gram)	PVP 5%	PVP 7,5%	PVP 10%
Berat mula-mula	2,00	2,00	2,00
Berat konstan	1,93	1,93	1,91
LOD (%)	4,00%	4,00%	4,50%

## Contoh perhitungan LOD

$$\% \text{ LOD} = \frac{\text{berat sampel basah} - \text{berat sampel kering}}{\text{berat sampel basah}} \times 100\%$$

$$= \frac{2,00 - 1,93}{2,00}$$

$$= 4\%$$

**Lampiran 2. Data uji waktu alir granul**

Waktu alir granul (100 mg)

No	Waktu alir granul (detik)		
	PVP 5%	PVP 7,5%	PVP 10%
1	8,10	7,35	6,25
2	7,95	6,70	6,00
3	7,25	6,40	5,80
<b><math>\Sigma x</math></b>	<b>23,3</b>	<b>20,45</b>	<b>18,05</b>
<b>x</b>	<b>7,77</b>	<b>6,82</b>	<b>6,02</b>
<b>SD</b>	<b>0,4537</b>	<b>0,4856</b>	<b>0,2255</b>

### Lampiran 3 .Data uji keseragaman bobot

No	PVP 5%	PVP 7,5%	PVP 10%
	Bobot dalam mg	Bobot dalam mg	Bobot dalam mg
1	201	194	213
2	197	189	202
3	198	207	205
4	205	203	195
5	189	196	203
6	202	190	199
7	202	203	193
8	201	208	204
9	199	204	195
10	197	191	197
11	195	198	202
12	203	201	192
13	198	204	196
14	198	205	195
15	195	202	202
16	199	198	195
17	201	202	201
18	196	201	206
19	198	190	212
20	193	194	202
<b>Σx</b>	<b>3967</b>	<b>3980</b>	<b>4009</b>
<b>X</b>	<b>198</b>	<b>199</b>	<b>200</b>
<b>SD</b>	<b>3,73</b>	<b>5,96</b>	<b>5,87</b>
<b>CV</b>	<b>1,88%</b>	<b>2,99%</b>	<b>2,93%</b>

Perhitungan keseragaman bobot tablet:

Formula1 :

1. Bobot 20 tablet  $\rightarrow$  3,967 gram
2. Bobot rata – rata tiap tablet  $\frac{3,967}{20} = 0,198$  gram

3. Penyimpangan bobot rata – rata:

$$\text{Kolom A} = 7,5\% \rightarrow \frac{7,5}{100} \times 0,198 = 0,01485 \text{ gram}$$

1. Batas atas  $= 0,198 + 0,01485 = 0,21285$  gram
2. Batas bawah  $= 0,198 - 0,01485 = 0,18315$  gram

$$\text{Kolom B} = 15\% \rightarrow \frac{15}{100} \times 0,198 = 0,0297 \text{ gram}$$

$$1. \text{ Batas atas} = 0,198 + 0,0297 = 0,2277 \text{ gram}$$

$$2. \text{ Batas bawah} = 0,198 - 0,0297 = 0,1683 \text{ gram}$$

$$4. \text{ CV} = \frac{SD}{\text{bobot rata-rata}} \times 100 \%$$

$$= \frac{3,73}{198} \times 100\%$$

$$= 1,88\%$$

Formula 2:

$$1. \text{ Bobot 20 tablet} \rightarrow 3,980 \text{ gram}$$

$$2. \text{ Bobot rata-rata tiap tablet} = \frac{3,980}{20} = 0,199 \text{ gram}$$

3. Penyimpangan bobot rata-rata :

$$\text{Kolom A} = 7,5\% \rightarrow \frac{7,5}{100} \times 0,1990 \text{ gram} = 0,0149 \text{ gram}$$

$$1. \text{ Batas atas} = 0,199 + 0,0149 = 0,2139 \text{ gram}$$

$$2. \text{ Batas bawah} = 0,199 - 0,0149 = 0,1841 \text{ gram}$$

$$\text{Kolom B} = 15\% \rightarrow \frac{15}{100} \times 0,1990 = 0,0299 \text{ gram}$$

$$1. \text{ Batas atas} = 0,199 + 0,0299 = 0,2289 \text{ gram}$$

$$2. \text{ Batas bawah} = 0,199 - 0,0299 = 0,1691 \text{ gram}$$

$$4. \text{ CV} = \frac{SD}{\text{bobot rata-rata}} \times 100 \%$$

$$= \frac{5,96}{199} \times 100\%$$

$$= 2,99\%$$

Formula 3:

$$1. \text{ Bobot 20 tablet} \rightarrow 4,009 \text{ gram}$$



2. Bobot rata – rata tiap tablet  $\frac{4,009}{20} = 0,200$  gram

3. Penyimpangan bobot rata- rata:

$$\text{Kolom A} = 7,5\% \rightarrow \frac{7,5}{100} \times 0,200 = 0,015 \text{ gram}$$

1. Batas atas =  $0,200 + 0,015 = 0,215$  gram

2. Batas bawah =  $0,200 - 0,015 = 0,185$  gram

$$\text{Kolom B} = 15\% \rightarrow \frac{15}{100} \times 0,200 = 0,030 \text{ gram}$$

1. Batas atas =  $0,200 + 0,030 = 0,230$  gram

2. Batas bawah =  $0,200 - 0,030 = 0,170$ gram

4.  $CV = \frac{SD}{\text{bobot rata-rata}} \times 100\%$

$$= \frac{5,87}{200} \times 100\%$$

$$= 2,93\%$$

#### Lampiran 4. Data uji kerapuhan tablet

Formula	PVP 5%			PVP 7,5%			PVP 10%		
	a (gr)	b (gr)	%f	a (gr)	b (gr)	%f	a (gr)	b (gr)	%f
I	4,0961	4,0797	0,4	4,1462	4,1303	0,38	4,1763	4,1607	0,37
II	4,0925	4,0764	0,39	4,1296	4,1123	0,37	4,1895	4,1742	0,36
III	4,1084	4,0923	0,39	4,1692	4,1703	0,38	4,1785	4,1640	0,34
<b>Σx</b>			<b>1,18</b>			<b>1,13</b>			<b>1,07</b>
<b>X</b>			<b>0,39</b>			<b>0,38</b>			<b>0,36</b>
<b>SD</b>			<b>0,007</b>			<b>0,007</b>			<b>0,015</b>

Contoh perhitungan uji kerapuhan tablet:

Berat mula- mula (a) = 4,0961 gram

Berat akhir (b) = 4,0797 gram

$$\begin{aligned}
 \text{Angka kerapuhan } (\%f) &= \frac{a-b}{a} \times 100\% \\
 &= \frac{4,0961}{4,0797} \times 100\% \\
 &= 0,4\%
 \end{aligned}$$

**Lampiran 5. Data uji kekerasan tablet**

No	PVP 5%	PVP 7,5%	PVP 10%
1	11	10,2	12,4
2	11,2	11,5	13,4
3	12	11,5	15
4	11	12	15
5	14	10	14
6	12,5	12,5	13
7	12,5	12	12
8	11,5	10,8	12
9	13	12,5	14,5
10	11	11,4	15
<b><math>\Sigma x</math></b>	<b>119,7</b>	<b>114,4</b>	<b>136,3</b>
<b>x</b>	<b>11,97</b>	<b>11,44</b>	<b>13,63</b>
<b>SD</b>	<b>1,021</b>	<b>0,875</b>	<b>1,238</b>

**Lampiran 6. Data uji waktu hancur tablet**

No	PVP 5% (menit)	PVP 7,5% (menit)	PVP 10% (menit)
1	5,11	6,21	7,56
2	5,2	6,54	8,04
3	5,3	7,14	8,25
4	5,39	7,29	8,52
5	5,43	7,34	9,01
6	7,02	7,5	9,04
<b><math>\Sigma x</math></b>	<b>33,45</b>	<b>42,02</b>	<b>50,42</b>
<b>x</b>	<b>5,575</b>	<b>7,003333</b>	<b>8,403333</b>
<b>SD</b>	<b>0,718</b>	<b>0,511</b>	<b>0,575</b>

## Lampiran 7. Granul tablet nifedipin

Formula 1



Formula 2



Formula 3



**Lampiran 8. Tablet nifedipin**

Keterangan:

F1 : Tablet nifedipin dengan bahan pengikat PVP 5%

F2 : Tablet nifedipin dengan bahan pengikat PVP 7,5%

F3 : Tablet nifedipin dengan bahan pengikat PVP 10%

**Lampiran 9. Gambar alat penguji mutu fisik tablet**

**HARDNESS TESTER**





**FRIABILATOR**



### DISINTEGRATION TESTER



## Notes

Output Created		28-May-2014 19:22:12
Comments		
Input	Data	F:\file tyas\KTI FIX\spss\input\input kekerasan.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		<pre> NPAR TESTS   /K-S(NORMAL)=kkrsan   /STATISTICS DESCRIPTIVES   /MISSING ANALYSIS. </pre>
Resources	Processor Time	0:00:00.000
	Elapsed Time	0:00:00.018
	Number of Cases Allowed <sup>a</sup>	196608

a. Based on availability of workspace memory.

[DataSet2] F:\file tyas\KTI FIX\spss\input\input kekerasan.sav

## Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
kekerasan tablet	30	12.337	1.4045	10.0	15.0

### One-Sample Kolmogorov-Smirnov Test

		kekerasan tablet
N		30
Normal Parameters <sup>a,b</sup>	Mean	12.337
	Std. Deviation	1.4045
Most Extreme Differences	Absolute	.154
	Positive	.154
	Negative	-.082
Kolmogorov-Smirnov Z		.842
Asymp. Sig. (2-tailed)		.478

a. Test distribution is Normal.

b. Calculated from data.

## Oneway

### Notes

Output Created		28-May-2014 19:22:35
Comments		
Input	Data	F:\file tyas\KTI FIX\spss\input\input kekerasan.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.

Syntax	ONEWAY kkrasn BY formtab /STATISTICS HOMOGENEITY /MISSING ANALYSIS /POSTHOC=SCHEFFE ALPHA(0.05).		
Resources	Processor Time		0:00:00.031
	Elapsed Time		0:00:00.037

[DataSet2] F:\file tyas\KTI FIX\spss\input\input kekerasan.sav

### Test of Homogeneity of Variances

kekerasan tablet

Levene Statistic	df1	df2	Sig.
1.272	2	27	.297

### ANOVA

kekerasan tablet

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	26.659	2	13.329	11.780	.000
Within Groups	30.551	27	1.132		
Total	57.210	29			

### Post Hoc Tests

#### Multiple Comparisons

kekerasan tablet

Scheffe

(I) formula tablet	(J) formula tablet	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound

PVP 5%	PVP 7,5%	.5600	.4757	.509	-.672	1.792
	PVP 10%	-1.6600*	.4757	.007	-2.892	-.428
PVP 7,5%	PVP 5%	-.5600	.4757	.509	-1.792	.672
	PVP 10%	-2.2200*	.4757	.000	-3.452	-.988
PVP 10%	PVP 5%	1.6600*	.4757	.007	.428	2.892
	PVP 7,5%	2.2200*	.4757	.000	.988	3.452

\*. The mean difference is significant at the 0.05 level.

## Homogeneous Subsets

### kekerasan tablet

Scheffe<sup>a</sup>

formula tablet	N	Subset for alpha = 0.05	
		1	2
PVP 7,5%	10	11.410	
PVP 5%	10	11.970	
PVP 10%	10		13.630
Sig.		.509	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 10,000.

## Notes

Output Created		28-May-2014 19:19:03
Comments		
Input	Data	F:\file tyas\KTI FIX\spss\input\input kerapuhan.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	9
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		<pre> NPAR TESTS   /K-S(NORMAL)=krphantb   /STATISTICS DESCRIPTIVES   /MISSING ANALYSIS. </pre>
Resources	Processor Time	0:00:00.016
	Elapsed Time	0:00:00.034
	Number of Cases Allowed <sup>a</sup>	196608

a. Based on availability of workspace memory.

[DataSet1] F:\file tyas\KTI FIX\spss\input\input kerapuhan.sav

## Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
kerapuhan tablet	9	.3756	.01810	.34	.40

### One-Sample Kolmogorov-Smirnov Test

		kerapuhan tablet
N		9
Normal Parameters <sup>a,b</sup>	Mean	.3756
	Std. Deviation	.01810
Most Extreme Differences	Absolute	.157
	Positive	.101
	Negative	-.157
Kolmogorov-Smirnov Z		.472
Asymp. Sig. (2-tailed)		.979

a. Test distribution is Normal.

b. Calculated from data.

## Oneway

### Notes

Output Created		28-May-2014 19:19:28
Comments		
Input	Data	F:\file tyas\KTI FIX\spss\input\input kerapuhan.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	9
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.



Syntax	ONEWAY krphantb BY formtab /STATISTICS HOMOGENEITY /MISSING ANALYSIS /POSTHOC=SCHEFFE ALPHA(0.05).		
Resources	Processor Time		0:00:00.047
	Elapsed Time		0:00:00.037

[DataSet1] F:\file tyas\KTI FIX\spss\input\input kerapuhan.sav

### Test of Homogeneity of Variances

kerapuhan tablet

Levene Statistic	df1	df2	Sig.
2.400	2	6	.171

### ANOVA

kerapuhan tablet

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.002	2	.001	10.111	.012
Within Groups	.001	6	.000		
Total	.003	8			

### Post Hoc Tests

#### Multiple Comparisons

kerapuhan tablet

Scheffe

(I) formula tablet	(J) formula tablet	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound

PVP 5%	PVP 7,5%	.01667	.00816	.206	-.0095	.0429
	PVP 10%	.03667*	.00816	.012	.0105	.0629
PVP 7,5%	PVP 5%	-.01667	.00816	.206	-.0429	.0095
	PVP 10%	.02000	.00816	.125	-.0062	.0462
PVP 10%	PVP 5%	-.03667*	.00816	.012	-.0629	-.0105
	PVP 7,5%	-.02000	.00816	.125	-.0462	.0062

\*. The mean difference is significant at the 0.05 level.

## Homogeneous Subsets

### kerapuhan tablet

Scheffe<sup>a</sup>

formula tablet	N	Subset for alpha = 0.05	
		1	2
PVP 10%	3	.3567	
PVP 7,5%	3	.3767	.3767
PVP 5%	3		.3933
Sig.		.125	.206

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

## NPar Tests

### Notes

Output Created		28-May-2014 19:23:54
Comments		
Input	Data	F:\file tyas\KTI FIX\spss\input\input keseragaman bobot.sav
	Active Dataset	DataSet3
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	60
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /K-S(NORMAL)=ksgramanbbt /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	0:00:00.032
	Elapsed Time	0:00:00.022
	Number of Cases Allowed <sup>a</sup>	196608

a. Based on availability of workspace memory.

[DataSet3] F:\file tyas\KTI FIX\spss\input\input keseragaman bobot.sav

### Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
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## Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
keseragaman bobot	60	199.27	5.265	189	213

## One-Sample Kolmogorov-Smirnov Test

		keseragaman bobot
N		60
Normal Parameters <sup>a,b</sup>	Mean	199.27
	Std. Deviation	5.265
Most Extreme Differences	Absolute	.112
	Positive	.062
	Negative	-.112
Kolmogorov-Smirnov Z		.870
Asymp. Sig. (2-tailed)		.435

a. Test distribution is Normal.

b. Calculated from data.

## Oneway

## Notes

Output Created		28-May-2014 19:24:51
Comments		
Input	Data	F:\file tyas\KTI FIX\spss\input\input keseragaman bobot.sav
	Active Dataset	DataSet3
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	60

Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY ksgramanbbt BY formtab /STATISTICS HOMOGENEITY /MISSING ANALYSIS.
Resources	Processor Time	0:00:00.016
	Elapsed Time	0:00:00.011

[DataSet3] F:\file tyas\KTI FIX\spss\input\input keseragaman bobot.sav

#### Test of Homogeneity of Variances

keseragaman bobot

Levene Statistic	df1	df2	Sig.
3.708	2	57	.031

#### ANOVA

keseragaman bobot

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	46.233	2	23.117	.829	.442
Within Groups	1589.500	57	27.886		
Total	1635.733	59			

## NPar Tests

Notes	
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	Active Dataset DataSet3
	Filter <none>
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	Split File <none>
	N of Rows in Working Data File 60
Missing Value Handling	Definition of Missing User-defined missing values are treated as missing.
	Cases Used Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax	NPAR TESTS /K-S(NORMAL)=ksgramanbbt /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time 0:00:00.032
	Elapsed Time 0:00:00.022
	Number of Cases Allowed <sup>a</sup> 196608

a. Based on availability of workspace memory.

```
[DataSet3] F:\file tyas\KTI FIX\spss\input\input keseragaman
bobot.sav
```

## Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
keseragaman bobot	60	199.27	5.265	189	213

## One-Sample Kolmogorov-Smirnov Test

		keseragaman bobot
N		60
Normal Parameters <sup>a,b</sup>	Mean	199.27
	Std. Deviation	5.265
Most Extreme Differences	Absolute	.112
	Positive	.062
	Negative	-.112
Kolmogorov-Smirnov Z		.870
Asymp. Sig. (2-tailed)		.435

a. Test distribution is Normal.

b. Calculated from data.

## Oneway

## Notes

Output Created		28-May-2014 19:24:51
Comments		
Input	Data	F:\file tyas\KTI FIX\spss\input\input keseragaman bobot.sav
	Active Dataset	DataSet3
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	60

Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY ksgramanbbt BY formtab /STATISTICS HOMOGENEITY /MISSING ANALYSIS.
Resources	Processor Time	0:00:00.016
	Elapsed Time	0:00:00.011

[DataSet3] F:\file tyas\KTI FIX\spss\input\input keseragaman bobot.sav

#### Test of Homogeneity of Variances

keseragaman bobot

Levene Statistic	df1	df2	Sig.
3.708	2	57	.031

#### ANOVA

keseragaman bobot

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	46.233	2	23.117	.829	.442
Within Groups	1589.500	57	27.886		
Total	1635.733	59			



## NPar Tests

### Notes

Output Created		28-May-2014 19:27:53
Comments		
Input	Data	F:\file tyas\KTI FIX\spss\input\input waktu hancur.sav
	Active Dataset	DataSet5
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	18
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		<pre> NPAR TESTS   /K-S(NORMAL)=wktncr   /STATISTICS DESCRIPTIVES   /MISSING ANALYSIS. </pre>
Resources	Processor Time	0:00:00.015
	Elapsed Time	0:00:00.030
	Number of Cases Allowed <sup>a</sup>	196608

a. Based on availability of workspace memory.

[DataSet5] F:\file tyas\KTI FIX\spss\input\input waktu hancur.sav

### Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
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## Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
waktu hancur tablet	18	430.50	78.125	311	544

## One-Sample Kolmogorov-Smirnov Test

		waktu hancur tablet
N		18
Normal Parameters <sup>a,b</sup>	Mean	430.50
	Std. Deviation	78.125
Most Extreme Differences	Absolute	.146
	Positive	.146
	Negative	-.094
Kolmogorov-Smirnov Z		.621
Asymp. Sig. (2-tailed)		.835

a. Test distribution is Normal.

b. Calculated from data.

## Oneway

## Notes

Output Created		28-May-2014 19:28:14
Comments		
Input	Data	F:\file tyas\KTI FIX\spss\input\input waktu hancur.sav
	Active Dataset	DataSet5
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	18

Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY wkthncr BY formtab /STATISTICS HOMOGENEITY /MISSING ANALYSIS.
Resources	Processor Time	0:00:00.015
	Elapsed Time	0:00:00.027

[DataSet5] F:\file tyas\KTI FIX\spss\input\input waktu hancur.sav

### Test of Homogeneity of Variances

waktu hancur tablet

Levene Statistic	df1	df2	Sig.
.013	2	15	.987

### ANOVA

waktu hancur tablet

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	86281.000	2	43140.500	37.025	.000
Within Groups	17477.500	15	1165.167		
Total	103758.500	17			

### Oneway

### Notes

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Output Created		28-May-2014 19:28:29
Comments		
Input	Data	F:\file tyas\KTI FIX\spss\input\input waktu hancur.sav
	Active Dataset	DataSet5
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	18
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY wkthncr BY formtab /STATISTICS HOMOGENEITY /MISSING ANALYSIS /POSTHOC=SCHEFFE ALPHA(0.05).
Resources	Processor Time	0:00:00.047
	Elapsed Time	0:00:00.036

[DataSet5] F:\file tyas\KTI FIX\spss\input\input waktu hancur.sav

### Test of Homogeneity of Variances

waktu hancur tablet

Levene Statistic	df1	df2	Sig.
.013	2	15	.987

### ANOVA

waktu hancur tablet

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	86281.000	2	43140.500	37.025	.000
Within Groups	17477.500	15	1165.167		
Total	103758.500	17			

## Post Hoc Tests

### Multiple Comparisons

waktu hancur tablet

Scheffe

(I) formula tablet	(J) formula tablet	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PVP 5%	PVP 7,5%	-89.500*	19.708	.002	-142.98	-36.02
	PVP 10%	-169.500*	19.708	.000	-222.98	-116.02
PVP 7,5%	PVP 5%	89.500*	19.708	.002	36.02	142.98
	PVP 10%	-80.000*	19.708	.004	-133.48	-26.52
PVP 10%	PVP 5%	169.500*	19.708	.000	116.02	222.98
	PVP 7,5%	80.000*	19.708	.004	26.52	133.48

\*. The mean difference is significant at the 0.05 level.

## Homogeneous Subsets

waktu hancur tablet

Scheffe<sup>a</sup>

formula tablet	N	Subset for alpha = 0.05		
		1	2	3
PVP 5%	6	344.17		
PVP 7,5%	6		433.67	
PVP 10%	6			513.67

Sig.		1.000	1.000	1.000
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Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.