

**L**

**A**

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**P**

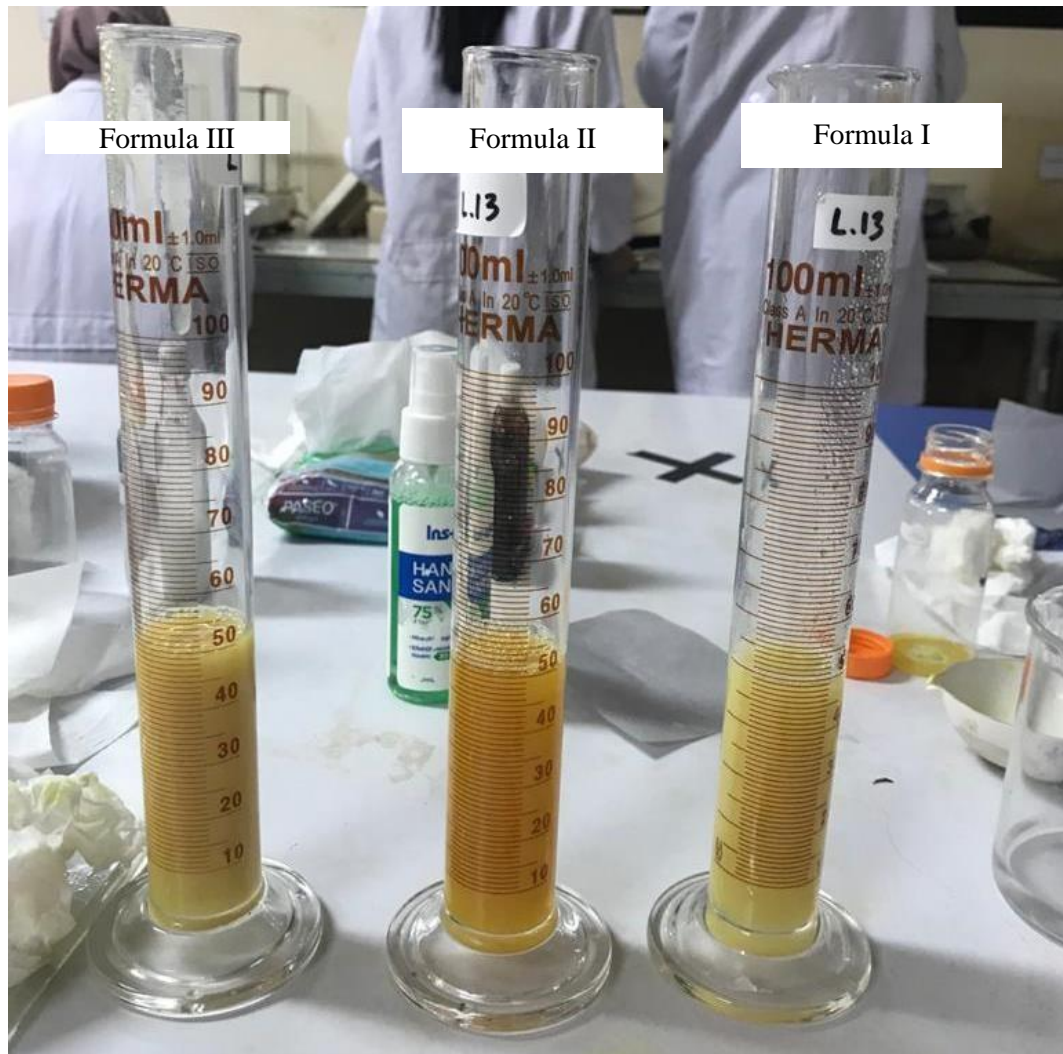
**I**

**R**

**A**

**N**

**Lampiran 1. Hasil serum myricetin**



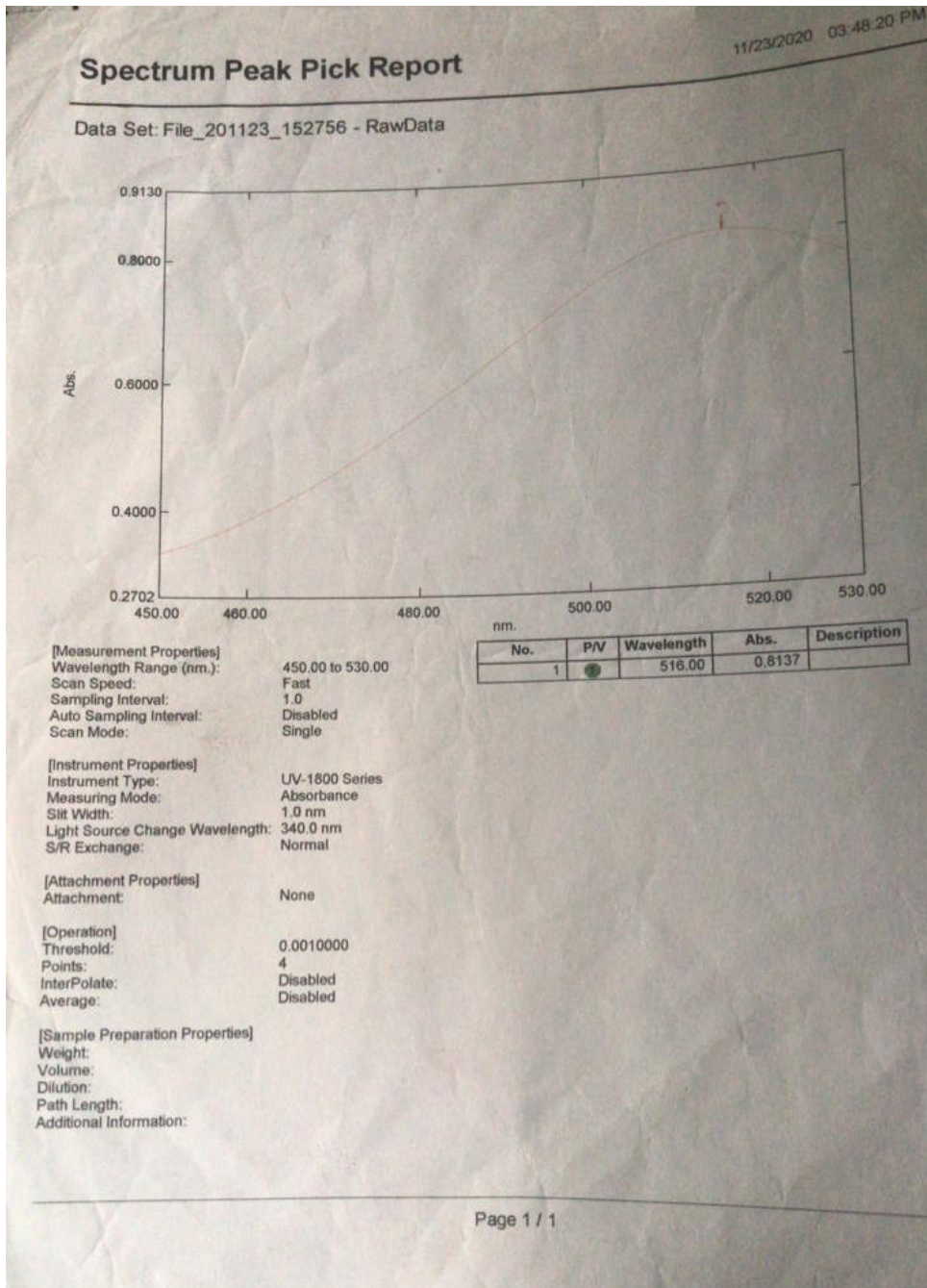
**Lampiran 2. Data hasil uji viskositas serum myricetin hari ke 0, 14, dan 21**

Hari	Formula	Replikasi			Rata-rata SD
		1	2	3	
Hari 0	Formula 1	0,6	0,5	0,6	0,56
	Formula 2	0,2	0,3	0,2	0,23
	Formula 3	2	1,8	1,8	1,86
Hari 14	Formula 1	0,6	0,6	0,6	0,6
	Formula 2	0,2	0,2	0,2	0,2
	Formula 3	1,5	1,3	1,3	1,36
Hari 21	Formula 1	1,3	1,2	1,2	1,23
	Formula 2	0,32	0,35	0,35	0,34
	Formula 3	1,1	1,1	1,1	1,1

**Lampiran 3. Data hasil uji pH serum myricetin hari ke 0, 14, dan 21**

Hari	Formula	Replikasi			Rata-rata SD
		1	2	3	
Hari 0	Formula 1	5,00	4,92	4,83	4,91
	Formula 2	8,60	8,52	8,53	8,55
	Formula 3	7,55	7,57	7,49	7,53
Hari 14	Formula 1	4,58	4,62	4,93	4,71
	Formula 2	8,95	9,00	9,4	9,11
	Formula 3	6,80	6,78	6,88	6,82
Hari 21	Formula 1	4,47	4,45	4,39	4,43
	Formula 2	9,43	9,49	9,53	9,48
	Formula 3	6,50	6,54	6,59	6,54

### Lampiran 4. Penentuan panjang gelombang maksimum DPPH



**Lampiran 5. Penetapan *operating time* myricetin**

<b>Time ( Minute )</b>	<b>RawData</b>
	...
0.000	0.183
1.000	0.159
2.000	0.145
3.000	0.135
4.000	0.131
5.000	0.128
6.000	0.127
7.000	0.125
8.000	0.125
9.000	0.124
10.000	0.124
11.000	0.124
12.000	0.124
13.000	0.125
14.000	0.124
15.000	0.124
16.000	0.124
17.000	0.123
18.000	0.123
19.000	0.123
20.000	0.123
21.000	0.122
22.000	0.123
23.000	0.122
24.000	0.122
25.000	0.122
26.000	0.122
27.000	0.122
28.000	0.121
29.000	0.122
30.000	0.121
31.000	0.122
32.000	0.121
33.000	0.121
34.000	0.121
35.000	0.121
36.000	0.121
37.000	0.121

38.000	0.122
39.000	0.121
40.000	0.121
41.000	0.121
42.000	0.121
43.000	0.121
44.000	0.121
45.000	0.121
46.000	0.120
47.000	0.121
48.000	0.120
49.000	0.121
50.000	0.120
51.000	0.120
52.000	0.120
53.000	0.120
54.000	0.119
55.000	0.120
56.000	0.119
57.000	0.120
58.000	0.119
59.000	0.119
60.000	0.119

**Lampiran 6. Penetapan *operating time* Formula I Hari ke 7**

<b>Time ( Minute )</b>	<b>RawData</b>
	...
0.000	0.558
1.000	0.559
2.000	0.558
3.000	0.559
4.000	0.559
5.000	0.559
6.000	0.559
7.000	0.559
8.000	0.560
9.000	0.559
10.000	0.560
11.000	0.561
12.000	0.560
13.000	0.560
14.000	0.560
15.000	0.560
16.000	0.561
17.000	0.560

18.000	0.561
19.000	0.561
20.000	0.561
21.000	0.562
22.000	0.562
23.000	0.562
24.000	0.562
25.000	0.562
26.000	0.562
27.000	0.562
28.000	0.562
29.000	0.562
30.000	0.562
31.000	0.563
32.000	0.562
33.000	0.563
34.000	0.563
35.000	0.564
36.000	0.563
37.000	0.564
38.000	0.563
39.000	0.564
40.000	0.563
41.000	0.563
42.000	0.564
43.000	0.564
44.000	0.564
45.000	0.565
46.000	0.564
47.000	0.565
48.000	0.565
49.000	0.565
50.000	0.565
51.000	0.565
52.000	0.566
53.000	0.565
54.000	0.565
55.000	0.566
56.000	0.565
57.000	0.566
58.000	0.566
59.000	0.566
60.000	0.566

**Lampiran 7. Penetapan *operating time* Formula II Hari ke 7**

<b>Time ( Minute )</b>	<b>RawData</b>
	...
0.000	0.585
1.000	0.586
2.000	0.586
3.000	0.586
4.000	0.586
5.000	0.585
6.000	0.585
7.000	0.585
8.000	0.586
9.000	0.586
10.000	0.586
11.000	0.585
12.000	0.586
13.000	0.586
14.000	0.586
15.000	0.586
16.000	0.586
17.000	0.586
18.000	0.586
19.000	0.586
20.000	0.586
21.000	0.587
22.000	0.587
23.000	0.587
24.000	0.587
25.000	0.587
26.000	0.587
27.000	0.587
28.000	0.587
29.000	0.587
30.000	0.588
31.000	0.587
32.000	0.587
33.000	0.588
34.000	0.588
35.000	0.588
36.000	0.588
37.000	0.588
38.000	0.588
39.000	0.588
40.000	0.588
41.000	0.589
42.000	0.589
43.000	0.589
44.000	0.589



45.000	0.589
46.000	0.589
47.000	0.590
48.000	0.590
49.000	0.590
50.000	0.590
51.000	0.590
52.000	0.591
53.000	0.591
54.000	0.591
55.000	0.591
56.000	0.591
57.000	0.591
58.000	0.591
59.000	0.591
60.000	0.591

**Lampiran 8. Penetapan *operating time* Formula III Hari ke 7**

<b>Time ( Minute )</b>	<b>RawData</b>
0.000	0.631
1.000	0.632
2.000	0.634
3.000	0.634
4.000	0.635
5.000	0.635
6.000	0.635
7.000	0.635
8.000	0.636
9.000	0.637
10.000	0.636
11.000	0.637
12.000	0.637
13.000	0.637
14.000	0.638
15.000	0.638
16.000	0.638
17.000	0.638
18.000	0.638
19.000	0.639
20.000	0.640
21.000	0.639
22.000	0.640
23.000	0.640
24.000	0.640

25.000	0.640
26.000	0.641
27.000	0.641
28.000	0.641
29.000	0.641
30.000	0.642
31.000	0.642
32.000	0.643
33.000	0.643
34.000	0.643
35.000	0.643
36.000	0.644
37.000	0.644
38.000	0.644
39.000	0.645
40.000	0.645
41.000	0.645
42.000	0.645
43.000	0.646
44.000	0.646
45.000	0.647
46.000	0.647
47.000	0.647
48.000	0.647
49.000	0.648
50.000	0.648
51.000	0.648
52.000	0.648
53.000	0.649
54.000	0.649
55.000	0.649
56.000	0.649
57.000	0.649
58.000	0.650
59.000	0.650
60.000	0.650

**Lampiran 9. Penetapan *operating time* Formula I Hari ke 21**

<b>Time ( Minute )</b>	<b>RawData</b>
	...
0.000	0.741
1.000	0.742
2.000	0.744
3.000	0.744
4.000	0.745

5.000	0.745
6.000	0.745
7.000	0.745
8.000	0.746
9.000	0.747
10.000	0.746
11.000	0.747
12.000	0.747
13.000	0.747
14.000	0.748
15.000	0.748
16.000	0.748
17.000	0.748
18.000	0.748
19.000	0.749
20.000	0.750
21.000	0.749
22.000	0.750
23.000	0.750
24.000	0.750
25.000	0.750
26.000	0.751
27.000	0.751
28.000	0.751
29.000	0.751
30.000	0.752
31.000	0.752
32.000	0.753
33.000	0.753
34.000	0.753
35.000	0.753
36.000	0.754
37.000	0.754
38.000	0.754
39.000	0.755
40.000	0.755
41.000	0.755
42.000	0.755
43.000	0.755
44.000	0.756
45.000	0.756
46.000	0.757
47.000	0.757
48.000	0.757
49.000	0.757
50.000	0.758

51.000	0.758
52.000	0.758
53.000	0.758
54.000	0.759
55.000	0.759
56.000	0.759
57.000	0.759
58.000	0.760
59.000	0.760
60.000	0.760

**Lampiran 10. Penetapan *operating time* Formula II Hari ke 21**

<b>Time ( Minute )</b>	<b>RawData</b>
0.000	0.755
1.000	0.756
2.000	0.756
3.000	0.756
4.000	0.756
5.000	0.755
6.000	0.755
7.000	0.755
8.000	0.756
9.000	0.756
10.000	0.756
11.000	0.755
12.000	0.756
13.000	0.756
14.000	0.756
15.000	0.756
16.000	0.756
17.000	0.756
18.000	0.756
19.000	0.756
20.000	0.756
21.000	0.757
22.000	0.757
23.000	0.757
24.000	0.757
25.000	0.757
26.000	0.757
27.000	0.757
28.000	0.757
29.000	0.757
30.000	0.758

31.000	0.757
32.000	0.757
33.000	0.758
34.000	0.758
35.000	0.758
36.000	0.758
37.000	0.758
38.000	0.758
39.000	0.758
40.000	0.758
41.000	0.759
42.000	0.759
43.000	0.759
44.000	0.759
45.000	0.759
46.000	0.759
47.000	0.760
48.000	0.760
49.000	0.760
50.000	0.760
51.000	0.760
52.000	0.760
53.000	0.760
54.000	0.760
55.000	0.761
56.000	0.761
57.000	0.761
58.000	0.761
59.000	0.761
60.000	0.761

**Lampiran 11. Penetapan *operating time* Formula III Hari ke 21**

<b>Time ( Minute )</b>	<b>RawData</b>
	...
0.000	0.768
1.000	0.769
2.000	0.768
3.000	0.769
4.000	0.769
5.000	0.769
6.000	0.769
7.000	0.769
8.000	0.770
9.000	0.769
10.000	0.770

11.000	0.771
12.000	0.770
13.000	0.770
14.000	0.770
15.000	0.770
16.000	0.771
17.000	0.770
18.000	0.771
19.000	0.771
20.000	0.771
21.000	0.772
22.000	0.72
23.000	0.772
24.000	0.772
25.000	0.772
26.000	0.772
27.000	0.772
28.000	0.772
29.000	0.772
30.000	0.772
31.000	0.773
32.000	0.772
33.000	0.773
34.000	0.773
35.000	0.774
36.000	0.773
37.000	0.774
38.000	0.773
39.000	0.774
40.000	0.773
41.000	0.773
42.000	0.774
43.000	0.774
44.000	0.774
45.000	0.775
46.000	0.774
47.000	0.774
48.000	0.775
49.000	0.775
50.000	0.775
51.000	0.775
52.000	0.776
53.000	0.775
54.000	0.775
55.000	0.775
56.000	0.776

57.000	0.776
58.000	0.776
59.000	0.776
60.000	0.776

### **Lampiran 12. Data penimbangan DPPH dan pembuatan larutan stok**

#### **Penimbangan DPPH**

Serbuk DPPH untuk uji antioksidan ditimbang sesuai hasil perhitungan berikut:

Penimbangan DPPH = BM DPPH x Volume larutan x Molaritas DPPH

$$= 394,32 \text{ g/mol} \times 0,1 \text{ liter} \times 0,0004 \text{ M}$$

$$= 0,015772 \text{ g} = 15,77 \text{ mg} = 15,8 \text{ mg}$$

#### **Pembuatan larutan DPPH**

Serbuk DPPH ditimbang sebanyak 15,8 mg, kemudian dilarutkan dengan ethanol p.a add hingga tanda batas labu takar 100,0 mL.

### **Lampiran 13. Data perhitungan dan pembuatan seri konsentrasi dari larutan induk rutin Penimbangan larutan stok myricetin**

dilakukan dengan cara ditimbang 5 mg dimasukkan dalam labu takar 100 mL kemudian ditambahkan ethanol p.a sampai tanda batas, sehingga diperoleh konsentrasi 50 ppm.

Konsentrasi myricetin = 5 mg/100 mL

$$= 50 \text{ mg}/1000 \text{ mL}$$

$$= 50 \text{ ppm}$$

Larutan rutin konsentrasi 50 ppm diencerkan menjadi 4 seri konsentrasi, yaitu 25 ppm, 12,5 ppm, 6,25 ppm, dan 3,125 ppm.

Konsentrasi 25 ppm

$$V(\text{larutan induk}) \times C(\text{larutan induk}) = V(\text{larutan sampel}) \times C(\text{larutan sampel})$$

$$V(\text{larutan induk}) \times 50 \text{ ppm} = 10 \text{ mL} \times 25 \text{ ppm} \quad V(\text{larutan induk})$$

$$= 5 \text{ mL}$$

Konsentrasi 12,5 ppm

$$V(\text{larutan induk}) \times C(\text{larutan induk}) = V(\text{larutan sampel}) \times C(\text{larutan sampel})$$

$$V(\text{larutan induk}) \times 50 \text{ ppm} = 10 \text{ mL} \times 12,5 \text{ ppm} \quad V(\text{larutan induk})$$

$$= 2,5 \text{ mL}$$

Konsentrasi 6,25 ppm

$$V(\text{larutan induk}) \times C(\text{larutan induk}) = V(\text{larutan sampel}) \times C(\text{larutan sampel})$$

$$V(\text{larutan induk}) \times 50 \text{ ppm} = 10 \text{ mL} \times 6,25 \text{ ppm} \quad V(\text{larutan induk})$$

$$= 1,25 \text{ mL}$$

Konsentrasi 3,125 ppm

$$V(\text{larutan induk}) \times C(\text{larutan induk}) = V(\text{larutan sampel}) \times C(\text{larutan sampel})$$

$$V(\text{larutan induk}) \times 50 \text{ ppm} = 10 \text{ mL} \times 3,125 \text{ ppm} \quad V(\text{larutan induk})$$

$$= 0,625 \text{ mL}$$

Larutan induk dipipet 5 mL dimasukkan kedalam labu takar 10 mL dan di add dengan ethanol p.a sampai tanda batas sehingga diperoleh konsentrasi 25 ppm. larutan konsentrasi 25 ppm dipipet sebanyak 2,5 mL dan di add dengan ethanol p.a sampai tanda labu takar 10 mL sehingga diperoleh konsentrasi 12,5 ppm. larutan konsentrasi 12,5 ppm dipipet sebanyak 1,25 mL dan di add dengan ethanol p.a sampai tanda labu takar 10 mL sehingga diperoleh konsentrasi 6,25 ppm. larutan konsentrasi 6,25 ppm dipipet sebanyak 0,625 mL dan di add dengan ethanol p.a sampai tanda labu takar 10 mL sehingga diperoleh konsentrasi 3,125 ppm.

**Lampiran 14. Data perhitungan dan pembuatan seri konsentrasi dari larutan induk formula 1, 2, dan 3 serum myricetin.**



Penimbangan larutan stok formula dilakukan dengan cara ditimbang 5 mg dimasukkan dalam labu takar 100 mL kemudian ditambahkan ethanol p.a sampai tanda batas, sehingga diperoleh konsentrasi 50 ppm.

$$\begin{aligned}\text{Konsentrasi formula} &= 5 \text{ mg}/100 \text{ mL} \\ &= 50 \text{ mg}/1000 \text{ mL} \\ &= 50 \text{ ppm}\end{aligned}$$

Larutan formula konsentrasi 50 ppm diencerkan menjadi 4 seri konsentrasi, yaitu 25 ppm, 12,5 ppm, 6,25 ppm, dan 3,125 ppm.

Konsentrasi 25 ppm

$$\begin{aligned}V(\text{larutan induk}) \times C(\text{larutan induk}) &= V(\text{larutan sampel}) \times C(\text{larutan sampel}) \\ V(\text{larutan induk}) \times 50 \text{ ppm} &= 10 \text{ mL} \times 25 \text{ ppm} \\ V(\text{larutan induk}) &= 5 \text{ mL}\end{aligned}$$

Konsentrasi 12,5 ppm

$$\begin{aligned}V(\text{larutan induk}) \times C(\text{larutan induk}) &= V(\text{larutan sampel}) \times C(\text{larutan sampel}) \\ V(\text{larutan induk}) \times 50 \text{ ppm} &= 10 \text{ mL} \times 12,5 \text{ ppm} \\ V(\text{larutan induk}) &= 2,5 \text{ mL}\end{aligned}$$

Konsentrasi 6,25 ppm

$$\begin{aligned}V(\text{larutan induk}) \times C(\text{larutan induk}) &= V(\text{larutan sampel}) \times C(\text{larutan sampel}) \\ V(\text{larutan induk}) \times 50 \text{ ppm} &= 10 \text{ mL} \times 6,25 \text{ ppm} \\ V(\text{larutan induk}) &= 1,25 \text{ mL}\end{aligned}$$

Konsentrasi 3,125 ppm

$$\begin{aligned}V(\text{larutan induk}) \times C(\text{larutan induk}) &= V(\text{larutan sampel}) \times C(\text{larutan sampel}) \\ V(\text{larutan induk}) \times 50 \text{ ppm} &= 10 \text{ mL} \times 3,125 \text{ ppm} \\ V(\text{larutan induk}) &= 0,625 \text{ mL}\end{aligned}$$

Larutan induk dipipet 5 mL dimasukkan kedalam labu takar 10 mL dan di add dengan ethanol p.a sampai tanda batas sehingga diperoleh konsentrasi 25 ppm. larutan konsentrasi 25 ppm dipipet sebanyak 2,5 mL dan di add dengan ethanol p.a sampai tanda labu takar 10 mL sehingga diperoleh konsentrasi 12,5 ppm. larutan konsentrasi 12,5 ppm dipipet sebanyak 1,25 mL dan di add dengan ethanol p.a sampai tanda labu takar 10 mL sehingga diperoleh konsentrasi 6,25 ppm. larutan konsentrasi 6,25 ppm dipipet sebanyak 0,625 mL dan di add dengan

ethanol p.a sampai tanda labu takar 10 mL sehingga diperoleh konsentrasi 3,125 ppm.

### Perhitungan aktivitas antioksidan dan IC50 myricetin

**Absorbansi blanko = 0,8137**

Perhitungan persentase peredaman menggunakan rumus :

$$\text{Peredaman (\%)} = \frac{\text{absorbansi kontrol} - \text{absorbansi sampel}}{\text{absorbansi kontrol}} \times 100\%$$

$$50 \text{ ppm} = \frac{0,8137 - 0,121}{0,8137} \times 100\% = 85,12\%$$

$$25 \text{ ppm} = \frac{0,8137 - 0,171}{0,8137} \times 100\% = 78,98\%$$

$$12,5 \text{ ppm} = \frac{0,8137 - 0,633}{0,8137} \times 100\% = 22,20\%$$

$$6,25 \text{ ppm} = \frac{0,8137 - 0,736}{0,8137} \times 100\% = 9,54\%$$

$$3,125 \text{ ppm} = \frac{0,8137 - 0,762}{0,8137} \times 100\% = 6,35\%$$

Konsentrasi	Absorbansi sampel	Peredaman (%)
50 ppm	0,121	85,12%
25 ppm	0,171	78,98%
12,5 ppm	0,633	22,20%
6,25 ppm	0,736	9,54%
3,125 ppm	0,762	6,35%

Hasil perhitungan regresi linier antara % peredaman vs konsentrasi

$$a = 4,837$$

$$b = 1,8374$$

$$r = 0,9094$$

sehingga didapatkan persamaan :  $y = a + bx$

$$50 = 4,837 + 1,8374x$$

$$x = 24,57$$

$$\text{IC50} = 24,57 \text{ ppm}$$

### Perhitungan aktivitas antioksidan hari ke 7

### Perhitungan aktivitas antioksidan dan IC50 Formula I

**Absorbansi blanko = 0,8137**

Perhitungan persentase peredaman menggunakan rumus :

$$\text{Peredaman (\%)} = \frac{\text{absorbansi kontrol} - \text{absorbansi sampel}}{\text{absorbansi kontrol}} \times 100\%$$

$$50 \text{ ppm} = \frac{0,8137 - 0,565}{0,8137} \times 100\% = 30,564\%$$

$$25 \text{ ppm} = \frac{0,8137 - 0,626}{0,8137} \times 100\% = 23,06\%$$

$$12,5 \text{ ppm} = \frac{0,8137 - 0,7606}{0,8137} \times 100\% = 6,5257\%$$

$$6,25 \text{ ppm} = \frac{0,8137 - 0,8470}{0,8137} \times 100\% = -4,0924\%$$

$$3,125 \text{ ppm} = \frac{0,8137 - 0,9346}{0,8137} \times 100\% = -14,8580\%$$

Konsentrasi	Absorbansi sampel	Peredaman (%)
50 ppm	0,565	30,564%
25 ppm	0,626	23,06%
12,5 ppm	0,7606	6,5257%
6,25 ppm	0,8470	-4,0924%
3,125 ppm	0,9346	-14,8580%

Hasil perhitungan regresi linier antara % peredaman vs konsentrasi

$$a = -9,3071$$

$$b = 0,9056$$

$$r = 0,9205$$

sehingga didapatkan persamaan :  $y = a + bx$

$$50 \text{ ppm} = -9,3071 + 0,9205x$$

$$x = 44,2073$$

$$\text{IC}_{50} = 44,2073 \text{ ppm}$$

### Perhitungan aktivitas antioksidan dan IC50 formula II

**Absorbansi blanko = 0,8137**

Perhitungan persentase peredaman menggunakan rumus :

$$\text{Peredaman (\%)} = \frac{\text{absorbansi kontrol} - \text{absorbansi sampel}}{\text{absorbansi kontrol}} \times 100\%$$

$$50 \text{ ppm} = \frac{0,8137 - 0,591}{0,8137} \times 100\% = 27,3688\%$$

$$25 \text{ ppm} = \frac{0,8137 - 0,62}{0,8137} \times 100\% = 23,8048\%$$

$$12,5 \text{ ppm} = \frac{0,8137-0,7296}{0,8137} \times 100\% = 10,3355\%$$

$$6,25 \text{ ppm} = \frac{0,8137-0,8416}{0,8137} \times 100\% = -3,4287\%$$

$$3,125 \text{ ppm} = \frac{0,8137-0,84}{0,8137} \times 100\% = -3,2321\%$$

Konsentrasi	Absorbansi sampel	Peredaman (%)
50 ppm	0,591	27,3688%
25 ppm	0,62	23,8048%
12,5 ppm	0,7296	10,3355%
6,25 ppm	0,8416	-3,4287%
3,125 ppm	0,84	-3,2321%

Hasil perhitungan regresi linier antara % peredaman vs konsentrasi

$$a = -2,3437$$

$$b = 0,6871$$

$$r = 0,9021$$

sehingga didapatkan persamaan :  $y = a + bx$

$$50 \text{ ppm} = -2,3437 + 0,6871x$$

$$x = 52,8281$$

$$\text{IC}_{50} = 52,8281 \text{ ppm}$$

### Perhitungan aktivitas antioksidan dan IC<sub>50</sub> formula III

**Absorbansi blanko = 0,8137**

Perhitungan persentase peredaman menggunakan rumus :

$$\text{Peredaman (\%)} = \frac{\text{absorbansi kontrol} - \text{absorbansi sampel}}{\text{absorbansi kontrol}} \times 100\%$$

$$50 \text{ ppm} = \frac{0,8137-0,649}{0,8137} \times 100\% = 20,2408\%$$

$$25 \text{ ppm} = \frac{0,8137-0,6816}{0,8137} \times 100\% = 16,2344\%$$

$$12,5 \text{ ppm} = \frac{0,8137-0,7416}{0,8137} \times 100\% = 8,8607\%$$

$$6,25 \text{ ppm} = \frac{0,8137-0,93}{0,8137} \times 100\% = -14,9227\%$$

$$3,125 \text{ ppm} = \frac{0,8137-0,9646}{0,8137} \times 100\% = -18,5449\%$$

Konsentrasi	Absorbansi sampel	Peredaman (%)
50 ppm	0,649	20,2408%
25 ppm	0,6816	16,2344%
12,5 ppm	0,7416	0,8607%
6,25 ppm	0,93	-14,9227%
3,125 ppm	0,9646	-18,5449%

Hasil perhitungan regresi linier antara % peredaman vs konsentrasi

$$a = -15,2593$$

$$b = 0,8275$$

$$r = 0,8966$$

sehingga didapatkan persamaan :  $y = a + bx$

$$50\text{ppm} = -15.2593 + 0,8275x$$

$$x = 41,9827$$

$$\text{IC}_{50} = 41,9827 \text{ ppm}$$

**Perhitungan aktivitas antioksidan hari ke 21**

**Perhitungan aktivitas antioksidan dan IC50 Formula I**

**Absorbansi blanko = 0,8137**

Perhitungan persentase peredaman menggunakan rumus :

$$\text{Peredaman (\%)} = \frac{\text{absorbansi kontrol} - \text{absorbansi sampel}}{\text{absorbansi kontrol}} \times 100\%$$

$$50 \text{ ppm} = \frac{0,8137 - 0,755}{0,8137} \times 100\% = 7,2139\%$$

$$25 \text{ ppm} = \frac{0,8137 - 0,7846}{0,8137} \times 100\% = 3,5762\%$$

$$12,5 \text{ ppm} = \frac{0,8137 - 0,7853}{0,8137} \times 100\% = 3,4902\%$$

$$6,25 \text{ ppm} = \frac{0,8137 - 0,839}{0,8137} \times 100\% = 3,1092\%$$

$$3,125 \text{ ppm} = \frac{0,8137 - 0,882}{0,8137} \times 100\% = -8,5951\%$$

Konsentrasi	Absorbansi sampel	Peredaman (%)
50 ppm	0,755	7,2139%
25 ppm	0,7846	3,5762%
12,5 ppm	0,7853	3,4902%
6,25 ppm	0,839	3,1092%

3,125 ppm

0,882

-8,3937%

Hasil perhitungan regresi linier antara % peredaman vs konsentrasi

$$a = -4,7012$$

$$b = 0,2713$$

$$r = 0,8291$$

sehingga didapatkan persamaan :  $y = a + bx$

$$50\text{ppm} = -4.7012 + 0,2713x$$

$$x = 166,9694$$

$$\text{IC50} = 166,9694 \text{ ppm}$$

### Perhitungan aktivitas antioksidan dan IC50 Formula II

**Absorbansi blanko = 0,8137**

Perhitungan persentase peredaman menggunakan rumus :

$$\text{Peredaman (\%)} = \frac{\text{absorbansi kontrol} - \text{absorbansi sampel}}{\text{absorbansi kontrol}} \times 100\%$$

$$50 \text{ ppm} = \frac{0,8137 - 0,760}{0,8137} \times 100\% = 6,5994\%$$

$$25 \text{ ppm} = \frac{0,8137 - 0,8263}{0,8137} \times 100\% = -1,5484\%$$

$$12,5 \text{ ppm} = \frac{0,8137 - 0,8573}{0,8137} \times 100\% = -5,3582\%$$

$$6,25 \text{ ppm} = \frac{0,8137 - 0,871}{0,8137} \times 100\% = -7,0419\%$$

$$3,125 \text{ ppm} = \frac{0,8137 - 0,88}{0,8137} \times 100\% = -8,1479\%$$

Konsentrasi	Absorbansi sampel	Peredaman (%)
50 ppm	0,760	6,5994%
25 ppm	0,8263	-1,5484%
12,5 ppm	0,8573	-5,3582%
6,25 ppm	0,871	-7,0419%
3,125 ppm	0,88	-8,1479%

Hasil perhitungan regresi linier antara % peredaman vs konsentrasi

$$a = -9,1668$$

$$b = 0,3131$$

$$r=0,9996$$

$$X=130,4158\text{ppm}$$

sehingga didapatkan persamaan :  $y = a + bx$

$$50\text{ppm} = -9,1668 + 0,3131x$$

$$x= 130,4158$$

$$\text{IC}_{50} = 130,4158 \text{ ppm}$$

### Perhitungan aktivitas antioksidan dan IC50 Formula III

**Absorbansi blanko = 0,8137**

Perhitungan persentase peredaman menggunakan rumus :

$$\text{Peredaman (\%)} = \frac{\text{absorbansi kontrol} - \text{absorbansi sampel}}{\text{absorbansi kontrol}} \times 100\%$$

$$50 \text{ ppm} = \frac{0,8137 - 0,776}{0,8137} \times 100\% = 4,6331\%$$

$$25 \text{ ppm} = \frac{0,8137 - 0,794}{0,8137} \times 100\% = 2,2410\%$$

$$12,5 \text{ ppm} = \frac{0,8137 - 0,8396}{0,8137} \times 100\% = -3,1829\%$$

$$6,25 \text{ ppm} = \frac{0,8137 - 0,857}{0,8137} \times 100\% = -5,3213\%$$

$$3,125 \text{ ppm} = \frac{0,8137 - 0,9503}{0,8137} \times 100\% = -16,7875\%$$

Konsentrasi	Absorbansi sampel	Peredaman (%)
50 ppm	0,776	4,6331%
25 ppm	0,794	2,2410%
12,5 ppm	0,8396	-3,1829%
6,25 ppm	0,857	-5,3213%
3,125 ppm	0,9503	-16,7875%

Hasil perhitungan regresi linier antara % peredaman vs konsentrasi

$$a=-10,5812$$

$$b=0,3578$$

$$r=0,8137$$

sehingga didapatkan persamaan :  $y = a + bx$

$$50\text{ppm} = -10,5812 + 0,3578x$$

$$x= 110,1699$$

IC50 = 110,1699 ppm

**Lampiran 15. Hasil statistic viskositas serum myricetin**

**Hari ke 0**

**NPar Tests**

**Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
formula	9	.8889	.75074	.20	2.00

**One-Sample Kolmogorov-Smirnov Test**

		formula
N		9
Normal Parameters <sup>a,b</sup>	Mean	.8889
	Std. Deviation	.75074
	Absolute	.316
Most Extreme Differences	Positive	.316
	Negative	-.221
Kolmogorov-Smirnov Z		.949
Asymp. Sig. (2-tailed)		.328

a. Test distribution is Normal.

b. Calculated from data.

**Oneway**

**Notes**

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	Filter	<none>
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	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY formula BY replikasi /STATISTICS DESCRIPTIVES HOMOGENEITY /MISSING ANALYSIS /POSTHOC= TUKEY ALPHA(0.05).
Resources	Processor Time	00:00:00,05
	Elapsed Time	00:00:00,05

[DataSet5]

### Descriptives

formula

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	3	.5667	.05774	.03333	.4232	.7101	.50	.60
2	3	.2333	.05774	.03333	.0899	.3768	.20	.30
3	3	1.8667	.11547	.06667	1.5798	2.1535	1.80	2.00
Total	9	.8889	.75074	.25025	.3118	1.4660	.20	2.00

### Test of Homogeneity of Variances

formula

Levene Statistic	df1	df2	Sig.
2.667	2	6	.148

### ANOVA

formula

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.469	2	2.234	335.167	.000
Within Groups	.040	6	.007		
Total	4.509	8			

## Post Hoc Tests

### Multiple Comparisons

Dependent Variable: formula

Tukey HSD

(I) replikasi	(J) replikasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	.33333*	.06667	.006	.1288	.5379
	3	-1.30000*	.06667	.000	-1.5046	-1.0954
2	1	-.33333*	.06667	.006	-.5379	-.1288
	3	-1.63333*	.06667	.000	-1.8379	-1.4288
3	1	1.30000*	.06667	.000	1.0954	1.5046
	2	1.63333*	.06667	.000	1.4288	1.8379

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

## Homogeneous Subsets

formula

Tukey HSD<sup>a</sup>

replikasi	N	Subset for alpha = 0.05		
		1	2	3
2	3	.2333		
1	3		.5667	
3	3			1.8667
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

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

Hari ke 14

## NPar Tests

**Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
formula	9	.7222	.51667	.20	1.50

**One-Sample Kolmogorov-Smirnov Test**

		formula
N		9
Normal Parameters <sup>a,b</sup>	Mean	.7222
	Std. Deviation	.51667
	Absolute	.260
Most Extreme Differences	Positive	.260
	Negative	-.202
Kolmogorov-Smirnov Z		.781
Asymp. Sig. (2-tailed)		.576

a. Test distribution is Normal.

b. Calculated from data.

**Oneway**

**Descriptives**

formula

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	3	.6000	.00000	.00000	.6000	.6000	.60	.60
2	3	.2000	.00000	.00000	.2000	.2000	.20	.20
3	3	1.3667	.11547	.06667	1.0798	1.6535	1.30	1.50
Total	9	.7222	.51667	.17222	.3251	1.1194	.20	1.50

**Test of Homogeneity of Variances**

formula

Levene Statistic	df1	df2	Sig.
16.000	2	6	.004

**ANOVA**

formula

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.109	2	1.054	237.250	.000
Within Groups	.027	6	.004		
Total	2.136	8			

## Post Hoc Tests

### Multiple Comparisons

Dependent Variable: formula

Tukey HSD

(I) replikasi	(J) replikasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	.40000*	.05443	.001	.2330	.5670
	3	-.76667*	.05443	.000	-.9337	-.5997
2	1	-.40000*	.05443	.001	-.5670	-.2330
	3	-1.16667*	.05443	.000	-1.3337	-.9997
3	1	.76667*	.05443	.000	.5997	.9337
	2	1.16667*	.05443	.000	.9997	1.3337

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

## Homogeneous Subsets

formula

Tukey HSD<sup>a</sup>

replikasi	N	Subset for alpha = 0.05		
		1	2	3
2	3	.2000		
1	3		.6000	
3	3			1.3667
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

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

**Hari ke 21**

## NPar Tests

**Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
formula	9	1.9111	1.12188	1.10	3.50

**One-Sample Kolmogorov-Smirnov Test**

		formula
N		9
Normal Parameters <sup>a,b</sup>	Mean	1.9111
	Std. Deviation	1.12188
	Absolute	.374
Most Extreme Differences	Positive	.374
	Negative	-.235
Kolmogorov-Smirnov Z		1.121
Asymp. Sig. (2-tailed)		.162

a. Test distribution is Normal.

b. Calculated from data.

**Oneway**

**Descriptives**

formula

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	3	1.2333	.05774	.03333	1.0899	1.3768	1.20	1.30
2	3	3.4000	.17321	.10000	2.9697	3.8303	3.20	3.50
3	3	1.1000	.00000	.00000	1.1000	1.1000	1.10	1.10
Total	9	1.9111	1.12188	.37396	1.0488	2.7735	1.10	3.50

**Test of Homogeneity of Variances**

formula

Levene Statistic	df1	df2	Sig.
11.200	2	6	.009

**ANOVA**

formula

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.002	2	5.001	450.100	.000
Within Groups	.067	6	.011		
Total	10.069	8			

## Post Hoc Tests

### Multiple Comparisons

Dependent Variable: formula

Tukey HSD

(I) replikasi	(J) replikasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-2.16667*	.08607	.000	-2.4307	-1.9026
	3	.13333	.08607	.336	-.1307	.3974
2	1	2.16667*	.08607	.000	1.9026	2.4307
	3	2.30000*	.08607	.000	2.0359	2.5641
3	1	-.13333	.08607	.336	-.3974	.1307
	2	-2.30000*	.08607	.000	-2.5641	-2.0359

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

## Homogeneous Subsets

formula

Tukey HSD<sup>a</sup>

replikasi	N	Subset for alpha = 0.05	
		1	2
3	3	1.1000	
1	3	1.2333	
2	3		3.4000
Sig.		.336	1.000

Means for groups in homogeneous subsets are displayed.

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

## Lampiran 8. Hasil statistic pH serum myricetin

Hari ke 0

### NPar Tests

#### Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
formula	9	7.0067	1.63066	4.83	8.60

#### One-Sample Kolmogorov-Smirnov Test

		formula
N		9
Normal Parameters <sup>a,b</sup>	Mean	7.0067
	Std. Deviation	1.63066
	Absolute	.283
Most Extreme Differences	Positive	.224
	Negative	-.283
Kolmogorov-Smirnov Z		.850
Asymp. Sig. (2-tailed)		.466

a. Test distribution is Normal.

b. Calculated from data.

### Oneway

#### Descriptives

formula

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	3	4.9167	.08505	.04910	4.7054	5.1279	4.83	5.00
2	3	8.5667	.05774	.03333	8.4232	8.7101	8.50	8.60
3	3	7.5367	.04163	.02404	7.4332	7.6401	7.49	7.57
Total	9	7.0067	1.63066	.54355	5.7532	8.2601	4.83	8.60

#### Test of Homogeneity of Variances

formula



Levene Statistic	df1	df2	Sig.
.556	2	6	.600

### ANOVA

formula

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	21.248	2	10.624	2591.195	.000
Within Groups	.025	6	.004		
Total	21.272	8			

### Post Hoc Tests

#### Multiple Comparisons

Dependent Variable: formula

Tukey HSD

(I) replikasi	(J) replikasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-3.65000*	.05228	.000	-3.8104	-3.4896
	3	-2.62000*	.05228	.000	-2.7804	-2.4596
2	1	3.65000*	.05228	.000	3.4896	3.8104
	3	1.03000*	.05228	.000	.8696	1.1904
3	1	2.62000*	.05228	.000	2.4596	2.7804
	2	-1.03000*	.05228	.000	-1.1904	-.8696

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

### Homogeneous Subsets

formula

Tukey HSD<sup>a</sup>

replikasi	N	Subset for alpha = 0.05		
		1	2	3
1	3	4.9167		
3	3		7.5367	
2	3			8.5667
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

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

**Hari ke 14**

### NPar Tests

**Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
formula	9	6.8789	1.90809	4.65	9.20

**One-Sample Kolmogorov-Smirnov Test**

		formula
N		9
Normal Parameters <sup>a,b</sup>	Mean	6.8789
	Std. Deviation	1.90809
	Absolute	.200
Most Extreme Differences	Positive	.200
	Negative	-.194
Kolmogorov-Smirnov Z		.600
Asymp. Sig. (2-tailed)		.865

a. Test distribution is Normal.

b. Calculated from data.

**Oneway**

**Descriptives**

formula

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	3	4.7100	.05568	.03215	4.5717	4.8483	4.65	4.76
2	3	9.1100	.13892	.08021	8.7649	9.4551	8.95	9.20
3	3	6.8167	.11015	.06360	6.5430	7.0903	6.71	6.93
Total	9	6.8789	1.90809	.63603	5.4122	8.3456	4.65	9.20

**Test of Homogeneity of Variances**

formula

Levene Statistic	df1	df2	Sig.
1.540	2	6	.289

### ANOVA

formula

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	29.057	2	14.529	1262.147	.000
Within Groups	.069	6	.012		
Total	29.126	8			

### Post Hoc Tests

#### Multiple Comparisons

Dependent Variable: formula

Tukey HSD

(I) replikasi	(J) replikasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-4.40000*	.08760	.000	-4.6688	-4.1312
	3	-2.10667*	.08760	.000	-2.3755	-1.8379
2	1	4.40000*	.08760	.000	4.1312	4.6688
	3	2.29333*	.08760	.000	2.0245	2.5621
3	1	2.10667*	.08760	.000	1.8379	2.3755
	2	-2.29333*	.08760	.000	-2.5621	-2.0245

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

### Homogeneous Subsets

formula

Tukey HSD<sup>a</sup>

replikasi	N	Subset for alpha = 0.05		
		1	2	3
1	3	4.7100		
3	3		6.8167	
2	3			9.1100
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

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

## Hari ke 21

### NPar Tests

#### Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
formula	9	6.8211	2.19554	4.39	9.53

#### One-Sample Kolmogorov-Smirnov Test

		formula
N		9
Normal Parameters <sup>a,b</sup>	Mean	6.8211
	Std. Deviation	2.19554
	Absolute	.216
Most Extreme Differences	Positive	.209
	Negative	-.216
Kolmogorov-Smirnov Z		.648
Asymp. Sig. (2-tailed)		.795

a. Test distribution is Normal.

b. Calculated from data.

### Oneway

#### Descriptives

formula

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	3	4.4367	.04163	.02404	4.3332	4.5401	4.39	4.47
2	3	9.4833	.05033	.02906	9.3583	9.6084	9.43	9.53
3	3	6.5433	.04509	.02603	6.4313	6.6553	6.50	6.59
Total	9	6.8211	2.19554	.73185	5.1335	8.5088	4.39	9.53

#### Test of Homogeneity of Variances

formula

Levene Statistic	df1	df2	Sig.
.040	2	6	.962

### ANOVA

formula

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	38.550	2	19.275	9178.688	.000
Within Groups	.013	6	.002		
Total	38.563	8			

### Post Hoc Tests

#### Multiple Comparisons

Dependent Variable: formula

Tukey HSD

(I) replikasi	(J) replikasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-5.04667*	.03742	.000	-5.1615	-4.9319
	3	-2.10667*	.03742	.000	-2.2215	-1.9919
2	1	5.04667*	.03742	.000	4.9319	5.1615
	3	2.94000*	.03742	.000	2.8252	3.0548
3	1	2.10667*	.03742	.000	1.9919	2.2215
	2	-2.94000*	.03742	.000	-3.0548	-2.8252

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

### Homogeneous Subsets

formula

Tukey HSD<sup>a</sup>

replikasi	N	Subset for alpha = 0.05		
		1	2	3
1	3	4.4367		
3	3		6.5433	
2	3			9.4833
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

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