

\*\*\*\* ARGUMEN MASA DALAM WAKTU PIAWAI MALAYSIA \*\*\*\*

BULAN

2017

Januari

WPM	GST			R.A.			GHA			DEK			PAR			UMUR
	h	j	m s	j	m	s	j	m	s	o	`	"	o	`	"	
1.00	22	42	2	20	37	34	2	4	27	-16	7	42	0	55	52	2.7
1.50	10	44	1	21	3	38	13	40	22	-14	54	31	0	56	7	3.2
2.00	22	45	59	21	29	21	1	16	37	-13	30	53	0	56	22	3.7
2.50	10	47	57	21	54	56	12	53	0	-11	56	50	0	56	37	4.2
3.00	22	49	55	22	20	41	0	29	14	-10	11	59	0	56	53	4.7
3.50	10	51	54	22	46	6	12	5	47	-8	20	9	0	57	9	5.2
4.00	22	53	52	23	11	44	23	42	8	-6	19	52	0	57	26	5.7
4.50	10	55	50	23	37	10	11	18	40	-4	15	13	0	57	43	6.2
5.00	22	57	48	0	2	41	22	55	7	-2	6	21	0	58	1	6.7
5.50	10	59	47	0	28	38	10	31	8	+0	6	56	0	58	18	7.2
6.00	23	1	45	0	54	35	22	7	9	+2	19	51	0	58	36	7.7
6.50	11	3	43	1	21	8	9	42	35	+4	33	49	0	58	53	8.2
7.00	23	5	42	1	47	52	21	17	50	+6	43	53	0	59	10	8.7
7.50	11	7	40	2	15	6	8	52	33	+8	49	48	0	59	26	9.2
8.00	23	9	38	2	43	7	20	26	30	+10	50	23	0	59	41	9.7
8.50	11	11	36	3	11	32	8	0	4	+12	41	21	0	59	54	10.2
9.00	23	13	35	3	40	46	19	32	49	+14	22	22	1	0	5	10.7
9.50	11	15	33	4	10	22	7	5	10	+15	49	38	1	0	14	11.2
10.00	23	17	31	4	40	45	18	36	46	+17	2	28	1	0	19	11.7
10.50	11	19	30	5	11	20	6	8	9	+17	58	4	1	0	21	12.2
11.00	23	21	28	5	42	11	17	39	16	+18	35	38	1	0	20	12.7
11.50	11	23	26	6	13	29	5	9	57	+18	54	15	1	0	15	13.2
12.00	23	25	24	6	44	26	16	40	57	+18	53	33	1	0	7	13.7
12.50	11	27	23	7	15	27	4	11	55	+18	33	24	0	59	55	14.2
13.00	23	29	21	7	45	48	15	43	33	+17	55	26	0	59	40	14.7
13.50	11	31	19	8	15	36	3	15	43	+17	0	39	0	59	21	15.2
14.00	23	33	17	8	44	58	14	48	19	+15	49	47	0	59	0	15.7
14.50	11	35	16	9	13	22	2	21	53	+14	26	35	0	58	37	16.2
15.00	23	37	14	9	41	14	13	55	59	+12	51	6	0	58	13	16.7
15.50	11	39	12	10	8	5	1	31	6	+11	7	45	0	57	47	17.2
16.00	23	41	11	10	34	12	13	6	58	+9	17	27	0	57	21	17.7
16.50	11	43	9	10	59	51	0	43	17	+7	20	35	0	56	56	18.2
17.00	23	45	7	11	24	39	12	20	27	+5	21	49	0	56	31	18.7
17.50	11	47	5	11	49	9	23	57	56	+3	19	41	0	56	7	19.2
18.00	23	49	4	12	12	58	11	36	6	+1	18	41	0	55	45	19.7
18.50	11	51	2	12	36	39	23	14	22	-0	43	3	0	55	25	20.2
19.00	23	53	0	12	59	50	10	53	10	-2	41	18	0	55	6	20.7
19.50	11	54	59	13	22	51	22	32	7	-4	36	46	0	54	51	21.2
20.00	23	56	57	13	45	59	10	10	57	-6	29	39	0	54	37	21.7
20.50	11	58	55	14	8	54	21	50	0	-8	16	35	0	54	26	22.2
21.00	0	0	53	14	32	7	9	28	46	-9	59	7	0	54	18	22.7
21.50	12	2	52	14	55	14	21	7	37	-11	34	12	0	54	12	23.2
22.00	0	4	50	15	18	33	8	46	17	-13	2	6	0	54	9	23.7
22.50	12	6	48	15	42	23	20	24	24	-14	23	2	0	54	9	24.2
23.00	0	8	46	16	6	15	8	2	31	-15	34	13	0	54	11	24.7
23.50	12	10	45	16	30	44	19	40	1	-16	36	30	0	54	15	25.2

24.00	0 12 43	16 55 16	7 17 27	-17 27 38	0 54 22	25.7
24.50	12 14 41	17 20 11	18 54 30	-18 7 42	0 54 30	26.2
25.00	0 16 40	17 45 40	6 30 59	-18 35 57	0 54 40	26.7
25.50	12 18 38	18 11 13	18 7 25	-18 51 26	0 54 52	27.2
26.00	0 20 36	18 37 16	5 43 19	-18 53 36	0 55 5	27.7
26.50	12 22 34	19 3 18	17 19 16	-18 42 24	0 55 19	28.2
27.00	0 24 33	19 29 44	4 54 49	-18 16 59	0 55 34	28.7
27.50	12 26 31	19 56 0	16 30 30	-17 38 19	0 55 50	29.2
28.00	0 28 29	20 22 18	4 6 11	-16 46 12	0 56 5	29.7
28.50	12 30 28	20 48 51	15 41 36	-15 40 4	0 56 22	.5
29.00	0 32 26	21 15 4	3 17 21	-14 22 25	0 56 37	1.0
29.50	12 34 24	21 41 28	14 52 56	-12 52 4	0 56 53	1.5
30.00	0 36 22	22 7 30	2 28 52	-11 12 24	0 57 8	2.0
30.50	12 38 21	22 33 26	14 4 54	- 9 23 29	0 57 23	2.5
31.00	0 40 19	22 59 31	1 40 48	- 7 25 17	0 57 37	3.0
31.50	12 42 17	23 25 19	13 16 58	- 5 22 1	0 57 50	3.5

BULAN

2017 Februari

WPM	GST	R.A.	GHA	DEK	PAR	UMUR
h	j m s	j m s	j m s	o \ "	o \ "	h
1.00	0 44 15	23 51 19	0 52 56	- 3 12 29	0 58 3	4.0
1.50	12 46 14	0 17 10	12 29 3	- 1 1 7	0 58 14	4.5
2.00	0 48 12	0 43 6	0 5 6	+ 1 11 38	0 58 25	5.0
2.50	12 50 10	1 9 28	11 40 42	+ 3 25 44	0 58 36	5.5
3.00	0 52 9	1 35 49	23 16 19	+ 5 36 12	0 58 45	6.0
3.50	12 54 7	2 2 46	10 51 20	+ 7 44 14	0 58 54	6.5
4.00	0 56 5	2 29 49	22 26 15	+ 9 45 2	0 59 2	7.0
4.50	12 58 3	2 57 20	10 0 42	+11 38 20	0 59 9	7.5
5.00	1 0 2	3 25 32	21 34 29	+13 22 57	0 59 15	8.0
5.50	13 2 0	3 54 0	9 8 0	+14 55 15	0 59 20	8.5
6.00	1 3 58	4 23 8	20 40 49	+16 14 58	0 59 24	9.0
6.50	13 5 57	4 52 29	8 13 27	+17 19 17	0 59 26	9.5
7.00	1 7 55	5 22 24	19 45 31	+18 7 44	0 59 27	10.0
7.50	13 9 53	5 52 20	7 17 33	+18 38 42	0 59 26	10.5
8.00	1 11 51	6 22 21	18 49 30	+18 51 53	0 59 22	11.0
8.50	13 13 50	6 52 38	6 21 11	+18 46 43	0 59 17	11.5
9.00	1 15 48	7 22 28	17 53 19	+18 23 56	0 59 10	12.0
9.50	13 17 46	7 52 18	5 25 28	+17 43 18	0 59 0	12.5
10.00	1 19 44	8 21 26	16 58 18	+16 47 10	0 58 48	13.0
10.50	13 21 43	8 50 2	4 31 40	+15 36 27	0 58 34	13.5
11.00	1 23 41	9 18 18	16 5 22	+14 11 39	0 58 18	14.0
11.50	13 25 39	9 45 42	3 39 57	+12 36 48	0 58 0	14.5
12.00	1 27 38	10 12 41	15 14 56	+10 51 29	0 57 41	15.0
12.50	13 29 36	10 38 49	2 50 46	+ 9 0 11	0 57 21	15.5
13.00	1 31 34	11 4 22	14 27 12	+ 7 3 35	0 57 1	16.0
13.50	13 33 32	11 29 36	2 3 56	+ 5 1 54	0 56 40	16.5
14.00	1 35 31	11 54 7	13 41 23	+ 2 59 47	0 56 19	17.0
14.50	13 37 29	12 18 28	1 19 1	+ 0 55 42	0 55 59	17.5
15.00	1 39 27	12 42 14	12 57 13	- 1 5 52	0 55 40	18.0
15.50	13 41 26	13 6 0	0 35 25	- 3 6 48	0 55 22	18.5
16.00	1 43 24	13 29 20	12 14 4	- 5 2 54	0 55 6	19.0
16.50	13 45 22	13 52 35	23 52 47	- 6 54 51	0 54 51	19.5

17.00	1 47 20	14 16 0	11 31 20	- 8 42 44	0 54 39	20.0
17.50	13 49 19	14 39 15	23 10 3	-10 23 21	0 54 29	20.5
18.00	1 51 17	15 2 49	10 48 27	-11 58 3	0 54 21	21.0
18.50	13 53 15	15 26 20	22 26 55	-13 24 4	0 54 16	21.5
19.00	1 55 13	15 50 1	10 5 12	-14 41 35	0 54 13	22.0
19.50	13 57 12	16 14 14	21 42 57	-15 50 44	0 54 13	22.5
20.00	1 59 10	16 38 26	9 20 43	-16 49 7	0 54 16	23.0
20.50	14 1 8	17 3 14	20 57 53	-17 37 21	0 54 22	23.5
21.00	2 3 7	17 28 4	8 35 2	-18 13 44	0 54 30	24.0
21.50	14 5 5	17 53 13	20 11 52	-18 38 15	0 54 40	24.5
22.00	2 7 3	18 18 53	7 48 9	-18 50 7	0 54 53	25.0
22.50	14 9 1	18 44 34	19 24 27	-18 48 58	0 55 7	25.5
23.00	2 11 0	19 10 46	7 0 13	-18 34 0	0 55 24	26.0
23.50	14 12 58	19 36 52	18 36 6	-18 5 45	0 55 42	26.5
24.00	2 14 56	20 3 23	6 11 33	-17 23 4	0 56 1	27.0
24.50	14 16 55	20 29 43	17 47 11	-16 27 31	0 56 21	27.5
25.00	2 18 53	20 56 8	5 22 44	-15 18 47	0 56 41	28.0
25.50	14 20 51	21 22 49	16 58 2	-13 56 20	0 57 2	28.5
26.00	2 22 49	21 49 15	4 33 34	-12 23 8	0 57 22	29.0
26.50	14 24 48	22 15 54	16 8 53	-10 37 52	0 57 41	29.5
27.00	2 26 46	22 42 18	3 44 28	- 8 44 22	0 58 0	.4
27.50	14 28 44	23 8 41	15 20 3	- 6 42 47	0 58 17	.9
28.00	2 30 42	23 35 19	2 55 23	- 4 33 20	0 58 32	1.4
28.50	14 32 41	0 1 46	14 30 54	- 2 20 37	0 58 46	1.9

BULAN

2017

Mac

WPM	GST			R.A.			GHA			DEK			PAR			UMUR
h	j	m	s	j	m	s	j	m	s	o	`	"	o	`	"	h
1.00	2	34	39	0	28	32	2	6	6	-	0	3 44	0	58	57	2.4
1.50	14	36	37	0	55	14	13	41	23	+	2	12 31	0	59	7	2.9
2.00	2	38	36	1	22	5	1	16	31	+	4	27 26	0	59	14	3.4
2.50	14	40	34	1	49	25	12	51	8	+	6	40 29	0	59	20	3.9
3.00	2	42	32	2	16	47	0	25	45	+	8	46 38	0	59	23	4.4
3.50	14	44	30	2	44	44	11	59	46	+10	46	39	0	59	24	4.9
4.00	2	46	29	3	12	45	23	33	44	+12	35	59	0	59	24	5.4
4.50	14	48	27	3	41	23	11	7	4	+14	15	6	0	59	22	5.9
5.00	2	50	25	4	10	4	22	40	20	+15	40	16	0	59	19	6.4
5.50	14	52	24	4	39	5	10	13	18	+16	51	13	0	59	14	6.9
6.00	2	54	22	5	8	34	21	45	47	+17	46	52	0	59	9	7.4
6.50	14	56	20	5	37	59	9	18	21	+18	25	35	0	59	2	7.9
7.00	2	58	18	6	7	43	20	50	35	+18	47	10	0	58	54	8.4
7.50	15	0	17	6	37	6	8	23	10	+18	51	18	0	58	46	8.9
8.00	3	2	15	7	6	22	19	55	52	+18	38	15	0	58	37	9.4
8.50	15	4	13	7	35	36	7	28	36	+18	7	56	0	58	27	9.9
9.00	3	6	12	8	4	15	19	1	56	+17	22	10	0	58	15	10.4
9.50	15	8	10	8	32	42	6	35	28	+16	20	46	0	58	4	10.9
10.00	3	10	8	9	0	24	18	9	43	+15	6	42	0	57	51	11.4
10.50	15	12	6	9	27	35	5	44	31	+13	40	49	0	57	38	11.9
11.00	3	14	5	9	54	28	17	19	36	+12	3	22	0	57	23	12.4
11.50	15	16	3	10	20	34	4	55	28	+10	18	36	0	57	9	12.9
12.00	3	18	1	10	46	24	16	31	37	+	8	25 35	0	56	53	13.4
12.50	15	19	59	11	11	31	4	8	28	+	6	28 49	0	56	37	13.9

13.00	3 21 58	11 36 26	15 45 31	+ 4 27 6	0 56 21	14.4
13.50	15 23 56	12 0 46	3 23 10	+ 2 24 54	0 56 5	14.9
14.00	3 25 54	12 24 46	15 1 8	+ 0 22 19	0 55 49	15.4
14.50	15 27 53	12 48 46	2 39 6	- 1 40 51	0 55 34	15.9
15.00	3 29 51	13 12 20	14 17 30	- 3 40 16	0 55 19	16.4
15.50	15 31 49	13 36 2	1 55 46	- 5 37 45	0 55 5	16.9
16.00	3 33 47	13 59 25	13 34 22	- 7 29 13	0 54 52	17.4
16.50	15 35 46	14 22 49	1 12 56	- 9 15 19	0 54 40	17.9
17.00	3 37 44	14 46 30	12 51 14	-10 55 59	0 54 30	18.4
17.50	15 39 42	15 10 3	0 29 39	-12 28 15	0 54 22	18.9
18.00	3 41 41	15 33 57	12 7 43	-13 53 11	0 54 16	19.4
18.50	15 43 39	15 57 50	23 45 49	-15 8 20	0 54 12	19.9
19.00	3 45 37	16 21 52	11 23 45	-16 13 47	0 54 11	20.4
19.50	15 47 35	16 46 24	23 1 11	-17 9 26	0 54 12	20.9
20.00	3 49 34	17 10 56	10 38 37	-17 53 38	0 54 15	21.4
20.50	15 51 32	17 35 56	22 15 35	-18 26 28	0 54 21	21.9
21.00	3 53 30	18 0 57	9 52 33	-18 46 59	0 54 30	22.4
21.50	15 55 29	18 26 26	21 29 2	-18 54 52	0 54 41	22.9
22.00	3 57 27	18 51 52	9 5 34	-18 49 54	0 54 55	23.4
22.50	15 59 25	19 17 29	20 41 56	-18 31 50	0 55 11	23.9
23.00	4 1 23	19 43 32	8 17 51	-17 59 48	0 55 30	24.4
23.50	16 3 22	20 9 26	19 53 55	-17 15 0	0 55 50	24.9
24.00	4 5 20	20 35 43	7 29 37	-16 16 2	0 56 12	25.4
24.50	16 7 18	21 1 49	19 5 29	-15 5 1	0 56 36	25.9
25.00	4 9 16	21 28 1	6 41 15	-13 41 33	0 57 0	26.4
25.50	16 11 15	21 54 31	18 16 44	-12 5 7	0 57 25	26.9
26.00	4 13 13	22 20 51	5 52 21	-10 18 59	0 57 50	27.4
26.50	16 15 11	22 47 31	17 27 40	- 8 21 43	0 58 15	27.9
27.00	4 17 10	23 14 4	5 3 5	- 6 17 25	0 58 38	28.4
27.50	16 19 8	23 40 45	16 38 22	- 4 6 17	0 59 0	28.9
28.00	4 21 6	0 7 51	4 13 15	- 1 48 40	0 59 20	29.4
28.50	16 23 4	0 34 56	15 48 8	+ 0 30 31	0 59 37	.4
29.00	4 25 3	1 2 30	3 22 32	+ 2 51 57	0 59 52	.9
29.50	16 27 1	1 30 9	14 56 51	+ 5 10 32	1 0 3	1.4
30.00	4 28 59	1 58 7	2 30 52	+ 7 25 12	1 0 10	1.9
30.50	16 30 58	2 26 42	14 4 15	+ 9 34 57	1 0 14	2.4
31.00	4 32 56	2 55 23	1 37 33	+11 34 43	1 0 15	2.9
31.50	16 34 54	3 24 41	13 10 12	+13 24 43	1 0 13	3.4

BULAN

2017 April

WPM	GST	R.A.	GHA	DEK	PAR	UMUR
h	j m s	j m s	j m s	o ` "	o ` "	h
1.00	4 36 52	3 54 5	0 42 47	+15 0 47	1 0 7	3.9
1.50	16 38 51	4 23 58	12 14 52	+16 22 46	0 59 59	4.4
2.00	4 40 49	4 53 49	23 47 0	+17 28 1	0 59 48	4.9
2.50	16 42 47	5 23 43	11 19 3	+18 16 7	0 59 36	5.4
3.00	4 44 46	5 53 55	22 50 50	+18 46 37	0 59 21	5.9
3.50	16 46 44	6 23 40	10 23 3	+18 58 57	0 59 6	6.4
4.00	4 48 42	6 53 28	21 55 13	+18 53 16	0 58 50	6.9
4.50	16 50 40	7 22 37	9 28 2	+18 30 39	0 58 33	7.4
5.00	4 52 39	7 51 21	21 1 17	+17 51 49	0 58 16	7.9
5.50	16 54 37	8 19 48	8 34 48	+16 57 9	0 57 59	8.4

6.00	4 56 35	8 47 27	20 9 7	+15 49 28	0 57 42	8.9
6.50	16 58 33	9 14 45	7 43 48	+14 28 32	0 57 26	9.4
7.00	5 0 32	9 41 14	19 19 17	+12 57 57	0 57 9	9.9
7.50	17 2 30	10 7 9	6 55 20	+11 18 23	0 56 53	10.4
8.00	5 4 28	10 32 47	18 31 40	+ 9 29 57	0 56 37	10.9
8.50	17 6 27	10 57 42	6 8 44	+ 7 36 59	0 56 22	11.4
9.00	5 8 25	11 22 26	17 45 58	+ 5 38 10	0 56 7	11.9
9.50	17 10 23	11 46 35	5 23 48	+ 3 37 54	0 55 53	12.4
10.00	5 12 21	12 10 39	17 1 42	+ 1 34 39	0 55 39	12.9
10.50	17 14 20	12 34 16	4 40 3	- 0 27 15	0 55 26	13.4
11.00	5 16 18	12 57 43	16 18 34	- 2 28 1	0 55 13	13.9
11.50	17 18 16	13 21 19	3 56 57	- 4 27 53	0 55 1	14.4
12.00	5 20 15	13 44 37	15 35 37	- 6 22 43	0 54 50	14.9
12.50	17 22 13	14 8 11	3 14 1	- 8 14 18	0 54 40	15.4
13.00	5 24 11	14 31 34	14 52 37	- 9 58 48	0 54 30	15.9
13.50	17 26 9	14 55 4	2 31 5	-11 36 43	0 54 22	16.4
14.00	5 28 8	15 18 56	14 9 11	-13 7 58	0 54 15	16.9
14.50	17 30 6	15 42 43	1 47 23	-14 29 40	0 54 10	17.4
15.00	5 32 4	16 6 58	13 25 6	-15 42 54	0 54 6	17.9
15.50	17 34 2	16 31 8	1 2 54	-16 45 12	0 54 4	18.4
16.00	5 36 1	16 55 32	12 40 29	-17 36 53	0 54 4	18.9
16.50	17 37 59	17 20 21	0 17 37	-18 17 31	0 54 6	19.4
17.00	5 39 57	17 45 8	11 54 49	-18 46 0	0 54 11	19.9
17.50	17 41 56	18 10 19	23 31 36	-19 2 11	0 54 17	20.4
18.00	5 43 54	18 35 25	11 8 28	-19 5 45	0 54 26	20.9
18.50	17 45 52	19 0 53	22 44 58	-18 56 9	0 54 38	21.4
19.00	5 47 50	19 26 13	10 21 37	-18 33 52	0 54 52	21.9
19.50	17 49 49	19 51 36	21 58 12	-17 58 40	0 55 8	22.4
20.00	5 51 47	20 17 20	9 34 26	-17 9 46	0 55 26	22.9
20.50	17 53 45	20 42 51	21 10 53	-16 8 57	0 55 47	23.4
21.00	5 55 44	21 8 41	8 47 2	-14 54 42	0 56 10	23.9
21.50	17 57 42	21 34 19	20 23 22	-13 29 38	0 56 35	24.4
22.00	5 59 40	22 0 2	7 59 38	-11 53 20	0 57 1	24.9
22.50	18 1 38	22 26 5	19 35 33	-10 5 15	0 57 29	25.4
23.00	6 3 37	22 52 2	7 11 34	- 8 8 58	0 57 57	25.9
23.50	18 5 35	23 18 25	18 47 10	- 6 2 55	0 58 25	26.4
24.00	6 7 33	23 44 47	6 22 45	- 3 51 22	0 58 52	26.9
24.50	18 9 32	0 11 28	17 58 3	- 1 34 29	0 59 19	27.4
25.00	6 11 30	0 38 42	5 32 47	+ 0 47 18	0 59 44	27.9
25.50	18 13 28	1 6 8	17 7 20	+ 3 9 0	1 0 6	28.4
26.00	6 15 26	1 34 14	4 41 11	+ 5 31 2	1 0 25	28.9
26.50	18 17 25	2 2 38	16 14 46	+ 7 48 14	1 0 40	29.4
27.00	6 19 23	2 31 47	3 47 36	+10 0 29	1 0 52	.5
27.50	18 21 21	3 1 11	15 20 9	+12 2 34	1 0 58	1.0
28.00	6 23 19	3 31 7	2 52 12	+13 53 20	1 1 1	1.5
28.50	18 25 18	4 1 42	14 23 35	+15 30 59	1 0 59	2.0
29.00	6 27 16	4 32 25	1 54 50	+16 51 55	1 0 52	2.5
29.50	18 29 14	5 3 35	13 25 38	+17 55 37	1 0 42	3.0
30.00	6 31 13	5 34 36	0 56 36	+18 40 7	1 0 28	3.5
30.50	18 33 11	6 5 31	12 27 39	+19 5 18	1 0 11	4.0

BULAN

2017

Mei

WPM	GST			R.A.			GHA			DEK			PAR			UMUR
h	j	m	s	j	m	s	j	m	s	o	`	"	o	`	"	h
1.00	6	35	9	6	36	29	23	58	40	+19	10	59	0	59	51	4.5
1.50	18	37	7	7	6	45	11	30	22	+18	57	58	0	59	30	5.0
2.00	6	39	6	7	36	47	23	2	18	+18	26	31	0	59	7	5.5
2.50	18	41	4	8	5	54	10	35	9	+17	39	5	0	58	44	6.0
3.00	6	43	2	8	34	21	22	8	40	+16	36	44	0	58	20	6.5
3.50	18	45	0	9	2	19	9	42	41	+15	20	12	0	57	57	7.0
4.00	6	46	59	9	29	19	21	17	39	+13	53	10	0	57	34	7.5
4.50	18	48	57	9	55	51	8	53	5	+12	15	16	0	57	11	8.0
5.00	6	50	55	10	21	30	20	29	24	+10	30	34	0	56	50	8.5
5.50	18	52	54	10	46	48	8	6	6	+8	38	12	0	56	30	9.0
6.00	6	54	52	11	11	20	19	43	32	+6	42	23	0	56	11	9.5
6.50	18	56	50	11	35	25	7	21	24	+4	43	14	0	55	53	10.0
7.00	6	58	48	11	59	23	18	59	25	+2	40	36	0	55	37	10.5
7.50	19	0	47	12	22	51	6	37	56	+0	38	43	0	55	22	11.0
8.00	7	2	45	12	46	19	18	16	25	-1	24	6	0	55	8	11.5
8.50	19	4	43	13	9	27	5	55	16	-3	23	52	0	54	55	12.0
9.00	7	6	42	13	32	31	17	34	10	-5	20	49	0	54	44	12.5
9.50	19	8	40	13	55	50	5	12	49	-7	15	15	0	54	34	13.0
10.00	7	10	38	14	19	0	16	51	38	-9	3	32	0	54	25	13.5
10.50	19	12	36	14	42	30	4	30	6	-10	46	59	0	54	18	14.0
11.00	7	14	35	15	5	57	16	8	37	-12	22	26	0	54	11	14.5
11.50	19	16	33	15	29	34	3	46	58	-13	49	59	0	54	6	15.0
12.00	7	18	31	15	53	40	15	24	50	-15	9	42	0	54	2	15.5
12.50	19	20	30	16	17	44	3	2	45	-16	18	53	0	54	0	16.0
13.00	7	22	28	16	42	17	14	40	10	-17	18	18	0	53	58	16.5
13.50	19	24	26	17	6	46	2	17	39	-18	6	0	0	53	59	17.0
14.00	7	26	24	17	31	29	13	54	55	-18	42	7	0	54	0	17.5
14.50	19	28	23	17	56	35	1	31	47	-19	6	9	0	54	4	18.0
15.00	7	30	21	18	21	35	13	8	45	-19	17	33	0	54	9	18.5
15.50	19	32	19	18	46	56	0	45	23	-19	15	56	0	54	16	19.0
16.00	7	34	17	19	12	5	12	22	12	-19	1	37	0	54	25	19.5
16.50	19	36	16	19	37	30	23	58	45	-18	33	54	0	54	37	20.0
17.00	7	38	14	20	2	41	11	35	32	-17	53	57	0	54	50	20.5
17.50	19	40	12	20	27	50	23	12	22	-17	1	34	0	55	5	21.0
18.00	7	42	11	20	53	13	10	48	57	-15	56	3	0	55	23	21.5
18.50	19	44	9	21	18	19	22	25	49	-14	39	50	0	55	43	22.0
19.00	7	46	7	21	43	39	10	2	27	-13	11	17	0	56	4	22.5
19.50	19	48	5	22	8	46	21	39	19	-11	33	32	0	56	28	23.0
20.00	7	50	4	22	33	56	9	16	7	-9	46	8	0	56	53	23.5
20.50	19	52	2	22	59	26	20	52	35	-7	48	38	0	57	20	24.0
21.00	7	54	0	23	24	53	8	29	6	-5	44	52	0	57	48	24.5
21.50	19	55	59	23	50	49	20	5	9	-3	33	10	0	58	16	25.0
22.00	7	57	57	0	16	49	7	41	7	-1	17	56	0	58	45	25.5
22.50	19	59	55	0	43	14	19	16	41	+1	0	39	0	59	13	26.0
23.00	8	1	53	1	10	21	6	51	32	+3	22	15	0	59	41	26.5
23.50	20	3	52	1	37	47	18	26	4	+5	41	44	1	0	6	27.0
24.00	8	5	50	2	6	5	5	59	44	+7	59	36	1	0	28	27.5
24.50	20	7	48	2	34	48	17	33	0	+10	10	32	1	0	48	28.0
25.00	8	9	46	3	4	27	5	5	19	+12	14	22	1	1	3	28.5
25.50	20	11	45	3	34	30	16	37	14	+14	5	58	1	1	15	29.0
26.00	8	13	43	4	5	12	4	8	30	+15	44	1	1	1	21	.2
26.50	20	15	41	4	36	39	15	39	1	+17	6	29	1	1	22	.7

27.00	8 17 40	5 8 16	3 9 23	+18 10 11	1 1 19	1.2
27.50	20 19 38	5 40 19	14 39 18	+18 54 24	1 1 10	1.7
28.00	8 21 36	6 12 9	2 9 26	+19 17 54	1 0 57	2.2
28.50	20 23 34	6 43 46	13 39 48	+19 20 50	1 0 40	2.7
29.00	8 25 33	7 15 16	1 10 17	+19 3 15	1 0 20	3.2
29.50	20 27 31	7 45 54	12 41 36	+18 27 3	0 59 56	3.7
30.00	8 29 29	8 16 7	0 13 21	+17 32 41	0 59 31	4.2
30.50	20 31 27	8 45 16	11 46 11	+16 23 36	0 59 4	4.7
31.00	8 33 26	9 13 36	23 19 50	+15 1 8	0 58 36	5.2
31.50	20 35 24	9 41 18	10 54 5	+13 26 12	0 58 9	5.7

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WPM	GST	R.A.	GHA	DEK	PAR	UMUR
h	j m s	j m s	j m s	o \ "	o \ "	h
1.00	8 37 22	10 7 58	22 29 24	+11 43 9	0 57 41	6.2
1.50	20 39 21	10 34 6	10 5 14	+ 9 51 29	0 57 15	6.7
2.00	8 41 19	10 59 19	21 41 59	+ 7 55 38	0 56 49	7.2
2.50	20 43 17	11 24 10	9 19 7	+ 5 54 27	0 56 25	7.7
3.00	8 45 15	11 48 16	20 56 59	+ 3 52 22	0 56 3	8.2
3.50	20 47 14	12 11 58	8 35 15	+ 1 49 16	0 55 42	8.7
4.00	8 49 12	12 35 35	20 13 37	- 0 15 8	0 55 24	9.2
4.50	20 51 10	12 58 43	7 52 26	- 2 16 41	0 55 7	9.7
5.00	8 53 9	13 21 59	19 31 9	- 4 17 19	0 54 52	10.2
5.50	20 55 7	13 44 56	7 10 11	- 6 13 2	0 54 39	10.7
6.00	8 57 5	14 7 55	18 49 10	- 8 4 28	0 54 28	11.2
6.50	20 59 3	14 31 13	6 27 50	- 9 51 40	0 54 19	11.7
7.00	9 1 2	14 54 26	18 6 36	-11 31 26	0 54 12	12.2
7.50	21 3 0	15 18 4	5 44 56	-13 4 54	0 54 6	12.7
8.00	9 4 58	15 41 42	17 23 16	-14 29 15	0 54 1	13.2
8.50	21 6 57	16 5 33	5 1 23	-15 44 35	0 53 59	13.7
9.00	9 8 55	16 29 57	16 38 57	-16 50 44	0 53 57	14.2
9.50	21 10 53	16 54 19	4 16 33	-17 45 30	0 53 57	14.7
10.00	9 12 51	17 19 13	15 53 38	-18 29 18	0 53 58	15.2
10.50	21 14 50	17 44 2	3 30 47	-19 0 45	0 54 1	15.7
11.00	9 16 48	18 9 19	15 7 29	-19 19 46	0 54 5	16.2
11.50	21 18 46	18 34 26	2 44 20	-19 25 57	0 54 10	16.7
12.00	9 20 44	18 59 38	14 21 6	-19 19 12	0 54 17	17.2
12.50	21 22 43	19 25 7	1 57 35	-18 58 57	0 54 25	17.7
13.00	9 24 41	19 50 21	13 34 20	-18 26 13	0 54 35	18.2
13.50	21 26 39	20 15 45	1 10 53	-17 40 4	0 54 46	18.7
14.00	9 28 38	20 40 50	12 47 47	-16 42 22	0 54 58	19.2
14.50	21 30 36	21 5 49	0 24 46	-15 33 1	0 55 13	19.7
15.00	9 32 34	21 30 57	12 1 36	-14 11 22	0 55 29	20.2
15.50	21 34 32	21 55 45	23 38 47	-12 40 28	0 55 46	20.7
16.00	9 36 31	22 20 44	11 15 46	-10 58 40	0 56 6	21.2
16.50	21 38 29	22 45 28	22 53 1	- 9 9 30	0 56 26	21.7
17.00	9 40 27	23 10 14	10 30 13	- 7 12 38	0 56 49	22.2
17.50	21 42 25	23 35 21	22 7 4	- 5 7 43	0 57 12	22.7
18.00	9 44 24	0 0 25	9 43 59	- 2 58 49	0 57 37	23.2
18.50	21 46 22	0 25 58	21 20 23	- 0 44 23	0 58 3	23.7
19.00	9 48 20	0 51 41	8 56 39	+ 1 31 12	0 58 29	24.2
19.50	21 50 19	1 18 3	20 32 15	+ 3 49 6	0 58 55	24.7
20.00	9 52 17	1 44 45	8 7 31	+ 6 4 43	0 59 21	25.2

20.50	21 54 15	2 12 4	19 42 11	+ 8 17 16	0 59 45	25.7
21.00	9 56 13	2 40 20	7 15 53	+10 25 47	1 0 8	26.2
21.50	21 58 12	3 9 5	18 49 7	+12 25 14	1 0 28	26.7
22.00	10 0 10	3 38 51	6 21 19	+14 15 20	1 0 46	27.2
22.50	22 2 8	4 9 5	17 53 3	+15 51 27	1 0 59	27.7
23.00	10 4 7	4 40 0	5 24 6	+17 12 15	1 1 9	28.2
23.50	22 6 5	5 11 42	16 54 22	+18 15 46	1 1 14	28.7
24.00	10 8 3	5 43 33	4 24 30	+18 59 30	1 1 15	29.2
24.50	22 10 1	6 15 49	15 54 12	+19 22 38	1 1 10	.4
25.00	10 12 0	6 47 49	3 24 11	+19 24 44	1 1 1	.9
25.50	22 13 58	7 19 31	14 54 26	+19 6 11	1 0 47	1.4
26.00	10 15 56	7 51 2	2 24 53	+18 27 12	1 0 29	1.9
26.50	22 17 54	8 21 39	13 56 15	+17 30 34	1 0 8	2.4
27.00	10 19 53	8 51 45	1 28 7	+16 16 40	0 59 44	2.9
27.50	22 21 51	9 20 45	13 1 5	+14 49 39	0 59 18	3.4
28.00	10 23 49	9 49 8	0 34 40	+13 9 41	0 58 50	3.9
28.50	22 25 48	10 16 25	12 9 22	+11 21 31	0 58 21	4.4
29.00	10 27 46	10 42 53	23 44 52	+ 9 26 11	0 57 53	4.9
29.50	22 29 44	11 8 50	11 20 54	+ 7 24 14	0 57 24	5.4
30.00	10 31 42	11 33 53	22 57 49	+ 5 20 20	0 56 57	5.9
30.50	22 33 41	11 58 36	10 35 4	+ 3 13 17	0 56 31	6.4

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WPM	GST			R.A.			GHA			DEK			PAR			UMUR
h	j	m	s	j	m	s	j	m	s	o	`	"	o	`	"	h
1.00	10	35	39	12	22	37	22	13	1	+ 1	7	24	0	56	7	6.9
1.50	22	37	37	12	46	15	9	51	21	- 0	57	22	0	55	44	7.4
2.00	10	39	36	13	9	52	21	29	43	- 3	1	29	0	55	24	7.9
2.50	22	41	34	13	33	3	9	8	30	- 5	0	51	0	55	6	8.4
3.00	10	43	32	13	56	24	20	47	8	- 6	57	24	0	54	50	8.9
3.50	22	45	30	14	19	29	8	26	1	- 8	47	24	0	54	36	9.4
4.00	10	47	29	14	42	38	20	4	50	-10	31	31	0	54	25	9.9
4.50	22	49	27	15	6	9	7	43	17	-12	9	45	0	54	16	10.4
5.00	10	51	25	15	29	38	19	21	47	-13	39	16	0	54	9	10.9
5.50	22	53	23	15	53	33	6	59	50	-15	0	59	0	54	4	11.4
6.00	10	55	22	16	17	30	18	37	51	-16	12	32	0	54	1	11.9
6.50	22	57	20	16	41	42	6	15	38	-17	13	55	0	54	0	12.4
7.00	10	59	18	17	6	26	17	52	51	-18	4	51	0	54	1	12.9
7.50	23	1	17	17	31	9	5	30	7	-18	43	42	0	54	4	13.4
8.00	11	3	15	17	56	23	17	6	51	-19	10	29	0	54	8	13.9
8.50	23	5	13	18	21	31	4	43	42	-19	24	28	0	54	13	14.4
9.00	11	7	11	18	47	4	16	20	7	-19	25	13	0	54	20	14.9
9.50	23	9	10	19	12	26	3	56	43	-19	12	59	0	54	27	15.4
10.00	11	11	8	19	37	50	15	33	17	-18	47	36	0	54	36	15.9
10.50	23	13	6	20	3	28	3	9	38	-18	8	29	0	54	46	16.4
11.00	11	15	4	20	28	47	14	46	17	-17	17	20	0	54	57	16.9
11.50	23	17	3	20	54	15	2	22	47	-16	12	57	0	55	9	17.4
12.00	11	19	1	21	19	20	13	59	40	-14	57	58	0	55	22	17.9
12.50	23	20	59	21	44	18	1	36	41	-13	32	11	0	55	35	18.4
13.00	11	22	58	22	9	23	13	13	35	-11	55	12	0	55	50	18.9
13.50	23	24	56	22	34	7	0	50	49	-10	10	32	0	56	6	19.4
14.00	11	26	54	22	59	1	12	27	53	- 8	16	34	0	56	22	19.9



14.50	23 28 52	23 23 40	0 5 12	- 6 17 18	0 56 40	20.4
15.00	11 30 51	23 48 22	11 42 28	- 4 12 29	0 56 58	20.9
15.50	23 32 49	0 13 25	23 19 24	- 2 2 0	0 57 17	21.4
16.00	11 34 47	0 38 26	10 56 20	+ 0 9 53	0 57 37	21.9
16.50	23 36 46	1 3 58	22 32 47	+ 2 24 33	0 57 58	22.4
17.00	11 38 44	1 29 40	10 9 3	+ 4 37 36	0 58 19	22.9
17.50	23 40 42	1 56 4	21 44 38	+ 6 49 54	0 58 39	23.4
18.00	11 42 40	2 22 47	9 19 53	+ 8 57 7	0 59 0	23.9
18.50	23 44 39	2 50 7	20 54 31	+10 58 23	0 59 20	24.4
19.00	11 46 37	3 18 24	8 28 13	+12 52 45	0 59 38	24.9
19.50	23 48 35	3 47 7	20 1 27	+14 35 40	0 59 56	25.4
20.00	11 50 33	4 16 51	7 33 42	+16 6 49	1 0 11	25.9
20.50	23 52 32	4 46 57	19 5 34	+17 22 21	1 0 23	26.4
21.00	11 54 30	5 17 40	6 36 49	+18 21 14	1 0 33	26.9
21.50	23 56 28	5 49 5	18 7 23	+19 1 45	1 0 39	27.4
22.00	11 58 27	6 20 32	5 37 54	+19 22 25	1 0 41	27.9
22.50	0 0 25	6 52 20	17 8 5	+19 22 29	1 0 40	28.4
23.00	12 2 23	7 23 46	4 38 36	+19 2 27	1 0 34	28.9
23.50	0 4 21	7 54 54	16 9 27	+18 22 51	1 0 24	.1
24.00	12 6 20	8 25 47	3 40 33	+17 24 5	1 0 11	.6
24.50	0 8 18	8 55 47	15 12 30	+16 9 28	0 59 54	1.1
25.00	12 10 16	9 25 18	2 44 58	+14 39 17	0 59 34	1.6
25.50	0 12 15	9 53 48	14 18 26	+12 57 58	0 59 11	2.1
26.00	12 14 13	10 21 44	1 52 28	+11 5 32	0 58 47	2.6
26.50	0 16 11	10 48 40	13 27 31	+ 9 6 54	0 58 21	3.1
27.00	12 18 9	11 14 52	1 3 17	+ 7 2 59	0 57 54	3.6
27.50	0 20 8	11 40 38	12 39 29	+ 4 54 19	0 57 27	4.1
28.00	12 22 6	12 5 36	0 16 29	+ 2 45 36	0 57 1	4.6
28.50	0 24 4	12 30 19	11 53 45	+ 0 35 35	0 56 35	5.1
29.00	12 26 2	12 54 24	23 31 38	- 1 31 25	0 56 11	5.6
29.50	0 28 1	13 18 11	11 9 50	- 3 35 34	0 55 48	6.1
30.00	12 29 59	13 41 59	22 47 59	- 5 37 12	0 55 28	6.6
30.50	0 31 57	14 5 25	10 26 32	- 7 32 25	0 55 9	7.1
31.00	12 33 56	14 29 4	22 4 51	- 9 23 5	0 54 53	7.6
31.50	0 35 54	14 52 28	9 43 25	-11 5 39	0 54 39	8.1

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WPM	GST			R.A.			GHA			DEK			PAR			UMUR
h	j	m	s	j	m	s	j	m	s	o	`	"	o	`	"	h
1.00	12	37	52	15	15	59	21	21	52	-12	40	49	0	54	28	8.6
1.50	0	39	50	15	39	52	8	59	58	-14	8	27	0	54	19	9.1
2.00	12	41	49	16	3	44	20	38	5	-15	26	10	0	54	13	9.6
2.50	0	43	47	16	28	2	8	15	44	-16	34	37	0	54	9	10.1
3.00	12	45	45	16	52	21	19	53	23	-17	31	55	0	54	8	10.6
3.50	0	47	44	17	17	10	7	30	33	-18	18	18	0	54	8	11.1
4.00	12	49	42	17	41	59	19	7	43	-18	52	33	0	54	11	11.6
4.50	0	51	40	18	6	59	6	44	40	-19	14	27	0	54	16	12.1
5.00	12	53	38	18	32	27	18	21	10	-19	23	25	0	54	23	12.6
5.50	0	55	37	18	57	50	5	57	46	-19	19	23	0	54	31	13.1
6.00	12	57	35	19	23	34	17	34	0	-19	1	35	0	54	41	13.6
6.50	0	59	33	19	49	6	5	10	26	-18	30	54	0	54	51	14.1
7.00	13	1	31	20	14	38	16	46	53	-17	47	9	0	55	3	14.6

7.50	1	3	30	20	40	24	4	23	5	-16	49	38	0	55	16	15.1
8.00	13	5	28	21	5	49	15	59	39	-15	40	44	0	55	30	15.6
8.50	1	7	26	21	31	24	3	36	2	-14	19	2	0	55	43	16.1
9.00	13	9	25	21	56	36	15	12	48	-12	47	44	0	55	58	16.6
9.50	1	11	23	22	21	43	2	49	39	-11	6	39	0	56	12	17.1
10.00	13	13	21	22	46	58	14	26	23	-	9	15	0	56	27	17.6
10.50	1	15	19	23	11	55	2	3	24	-	7	18	0	56	42	18.1
11.00	13	17	18	23	37	4	13	40	13	-	5	13	0	56	57	18.6
11.50	1	19	16	0	2	1	1	17	14	-	3	5	0	57	12	19.1
12.00	13	21	14	0	27	18	12	53	56	-	0	52	0	57	27	19.6
12.50	1	23	13	0	52	30	0	30	42	+	1	19	0	57	42	20.1
13.00	13	25	11	1	17	58	12	7	12	+	3	32	0	57	57	20.6
13.50	1	27	9	1	43	57	23	43	11	+	5	45	0	58	11	21.1
14.00	13	29	7	2	10	8	11	18	59	+	7	53	0	58	26	21.6
14.50	1	31	6	2	36	59	22	54	6	+	9	57	0	58	39	22.1
15.00	13	33	4	3	4	9	10	28	55	+	11	52	0	58	53	22.6
15.50	1	35	2	3	31	51	22	3	11	+	13	38	0	59	5	23.1
16.00	13	37	1	4	0	26	9	36	34	+	15	14	0	59	17	23.6
16.50	1	38	59	4	29	19	21	9	39	+	16	36	0	59	27	24.1
17.00	13	40	57	4	59	2	8	41	54	+	17	44	0	59	36	24.6
17.50	1	42	55	5	29	0	20	13	55	+	18	35	0	59	44	25.1
18.00	13	44	54	5	59	17	7	45	36	+	19	8	0	59	49	25.6
18.50	1	46	52	6	30	7	19	16	44	+	19	22	0	59	52	26.1
19.00	13	48	50	7	0	45	6	48	5	+	19	17	0	59	53	26.6
19.50	1	50	48	7	31	35	18	19	13	+	18	52	0	59	51	27.1
20.00	13	52	47	8	1	54	5	50	52	+	18	10	0	59	46	27.6
20.50	1	54	45	8	31	52	17	22	52	+	17	9	0	59	38	28.1
21.00	13	56	43	9	1	34	4	55	9	+	15	52	0	59	28	28.6
21.50	1	58	42	9	30	26	16	28	15	+	14	22	0	59	15	29.1
22.00	14	0	40	9	58	54	4	1	46	+	12	38	0	58	59	.2
22.50	2	2	38	10	26	28	15	36	10	+	10	46	0	58	41	.7
23.00	14	4	36	10	53	36	3	11	0	+	8	44	0	58	21	1.2
23.50	2	6	35	11	19	54	14	46	41	+	6	39	0	57	59	1.7
24.00	14	8	33	11	45	37	2	22	56	+	4	30	0	57	37	2.2
24.50	2	10	31	12	11	3	13	59	27	+	2	18	0	57	14	2.7
25.00	14	12	30	12	35	50	1	36	39	+	0	7	0	56	51	3.2
25.50	2	14	28	13	0	29	13	13	58	-	2	2	0	56	28	3.7
26.00	14	16	26	13	24	38	0	51	47	-	4	7	0	56	6	4.2
26.50	2	18	24	13	48	34	12	29	50	-	6	8	0	55	46	4.7
27.00	14	20	23	14	12	38	0	7	44	-	8	5	0	55	27	5.2
27.50	2	22	21	14	36	22	11	45	58	-	9	54	0	55	9	5.7
28.00	14	24	19	15	0	23	23	23	56	-	11	37	0	54	54	6.2
28.50	2	26	17	15	24	11	11	2	6	-	13	11	0	54	41	6.7
29.00	14	28	16	15	48	6	22	40	9	-	14	35	0	54	31	7.2
29.50	2	30	14	16	12	25	10	17	49	-	15	51	0	54	22	7.7
30.00	14	32	12	16	36	38	21	55	34	-	16	55	0	54	17	8.2
30.50	2	34	11	17	1	21	9	32	50	-	17	49	0	54	14	8.7
31.00	14	36	9	17	25	58	21	10	10	-	18	31	0	54	14	9.2
31.50	2	38	7	17	51	5	8	47	2	-	19	1	0	54	16	9.7

BULAN

2017

September

WPM

GST

R.A.

GHA

DEK

PAR

UMUR

h	j	m	s	j	m	s	j	m	s	o	`	"	o	`	"	h	
1.00	14	40	5	18	16	6	20	23	59	-19	19	5	0	54	21	10.2	
1.50	2	42	4	18	41	18	8	0	45	-19	23	36	0	54	28	10.7	
2.00	14	44	2	19	6	53	19	37	9	-19	14	38	0	54	37	11.2	
2.50	2	46	0	19	32	20	7	13	40	-18	52	42	0	54	48	11.7	
3.00	14	47	59	19	58	5	18	49	53	-18	16	50	0	55	1	12.2	
3.50	2	49	57	20	23	37	6	26	19	-17	28	27	0	55	15	12.7	
4.00	14	51	55	20	49	9	18	2	46	-16	27	21	0	55	31	13.2	
4.50	2	53	53	21	14	55	5	38	58	-15	12	47	0	55	47	13.7	
5.00	14	55	52	21	40	22	17	15	29	-13	47	37	0	56	5	14.2	
5.50	2	57	50	22	6	2	4	51	47	-12	10	17	0	56	22	14.7	
6.00	14	59	48	22	31	24	16	28	23	-10	24	22	0	56	40	15.2	
6.50	3	1	46	22	56	45	4	5	1	-	8	29	44	0	56	58	15.7
7.00	15	3	45	23	22	20	15	41	24	-	6	26	16	0	57	15	16.2
7.50	3	5	43	23	47	43	3	18	0	-	4	18	18	0	57	31	16.7
8.00	15	7	41	0	13	25	14	54	16	-	2	4	27	0	57	47	17.2
8.50	3	9	40	0	39	1	2	30	38	+	0	10	31	0	58	1	17.7
9.00	15	11	38	1	5	3	14	6	35	+	2	27	54	0	58	15	18.2
9.50	3	13	36	1	31	5	1	42	31	+	4	42	45	0	58	27	18.7
10.00	15	15	34	1	57	27	13	18	6	+	6	54	49	0	58	38	19.2
10.50	3	17	33	2	24	25	0	53	7	+	9	3	9	0	58	47	19.7
11.00	15	19	31	2	51	35	12	27	56	+11	3	28	0	58	55	20.2	
11.50	3	21	29	3	19	27	0	2	2	+12	55	56	0	59	2	20.7	
12.00	15	23	28	3	47	31	11	35	56	+14	36	29	0	59	7	21.2	
12.50	3	25	26	4	16	4	23	9	21	+16	4	36	0	59	11	21.7	
13.00	15	27	24	4	45	17	10	42	6	+17	18	52	0	59	14	22.2	
13.50	3	29	22	5	14	40	22	14	42	+18	16	52	0	59	16	22.7	
14.00	15	31	21	5	44	34	9	46	46	+18	58	0	0	59	17	23.2	
14.50	3	33	19	6	14	26	21	18	52	+19	21	6	0	59	16	23.7	
15.00	15	35	17	6	44	21	8	50	56	+19	25	57	0	59	14	24.2	
15.50	3	37	16	7	14	30	20	22	45	+19	11	58	0	59	11	24.7	
16.00	15	39	14	7	44	11	7	55	2	+18	40	20	0	59	7	25.2	
16.50	3	41	12	8	13	51	19	27	20	+17	50	36	0	59	1	25.7	
17.00	15	43	10	8	42	50	7	0	20	+16	45	29	0	58	53	26.2	
17.50	3	45	9	9	11	37	18	33	31	+15	24	31	0	58	44	26.7	
18.00	15	47	7	9	39	36	6	7	31	+13	51	36	0	58	33	27.2	
18.50	3	49	5	10	7	3	17	42	2	+12	7	28	0	58	21	27.7	
19.00	15	51	3	10	34	10	5	16	53	+10	12	47	0	58	8	28.2	
19.50	3	53	2	11	0	32	16	52	29	+	8	12	7	0	57	53	28.7
20.00	15	55	0	11	26	37	4	28	22	+	6	4	44	0	57	36	29.2
20.50	3	56	58	11	52	2	16	4	56	+	3	55	24	0	57	19	.3
21.00	15	58	57	12	17	3	3	41	53	+	1	44	31	0	57	1	.8
21.50	4	0	55	12	41	58	15	18	56	-	0	27	40	0	56	43	1.3
22.00	16	2	53	13	6	24	2	56	29	-	2	36	41	0	56	24	1.8
22.50	4	4	51	13	30	51	14	34	0	-	4	43	51	0	56	6	2.3
23.00	16	6	50	13	54	57	2	11	52	-	6	45	9	0	55	48	2.8
23.50	4	8	48	14	18	57	13	49	50	-	8	40	41	0	55	31	3.3
24.00	16	10	46	14	43	10	1	27	36	-10	30	32	0	55	15	3.8	
24.50	4	12	45	15	7	11	13	5	33	-12	11	29	0	55	0	4.3	
25.00	16	14	43	15	31	30	0	43	12	-13	44	35	0	54	47	4.8	
25.50	4	16	41	15	55	41	12	21	0	-15	7	17	0	54	36	5.3	
26.00	16	18	39	16	20	13	23	58	26	-16	20	20	0	54	26	5.8	
26.50	4	20	38	16	44	40	11	35	57	-17	21	53	0	54	20	6.3	
27.00	16	22	36	17	9	14	23	13	22	-18	11	59	0	54	15	6.8	

27.50	4 24 34	17 34 14	10 50 20	-18 50 26	0 54 13	7.3
28.00	16 26 33	17 59 4	22 27 28	-19 16 14	0 54 14	7.8
28.50	4 28 31	18 24 20	10 4 10	-19 29 17	0 54 17	8.3
29.00	16 30 29	18 49 25	21 41 3	-19 29 28	0 54 23	8.8
29.50	4 32 27	19 14 37	9 17 50	-19 16 37	0 54 32	9.3
30.00	16 34 26	19 40 6	20 54 19	-18 50 6	0 54 43	9.8
30.50	4 36 24	20 5 23	8 31 0	-18 11 1	0 54 56	10.3

BULAN

2017 Oktober

WPM	GST	R.A.	GHA	DEK	PAR	UMUR
h	j m s	j m s	j m s	o \ "	o \ "	h
1.00	16 38 22	20 30 56	20 7 26	-17 18 14	0 55 12	10.8
1.50	4 40 20	20 56 15	7 44 5	-16 13 38	0 55 29	11.3
2.00	16 42 19	21 21 33	19 20 46	-14 56 59	0 55 48	11.8
2.50	4 44 17	21 47 6	6 57 10	-13 27 29	0 56 9	12.3
3.00	16 46 15	22 12 25	18 33 50	-11 48 24	0 56 31	12.8
3.50	4 48 14	22 38 1	6 10 12	- 9 57 59	0 56 53	13.3
4.00	16 50 12	23 3 25	17 46 46	- 8 0 6	0 57 15	13.8
4.50	4 52 10	23 29 10	5 23 0	- 5 53 8	0 57 37	14.3
5.00	16 54 8	23 54 49	16 59 19	- 3 41 29	0 57 59	14.8
5.50	4 56 7	0 20 40	4 35 26	- 1 25 18	0 58 20	15.3
6.00	16 58 5	0 47 0	16 11 4	+ 0 55 6	0 58 39	15.8
6.50	5 0 3	1 13 24	3 46 38	+ 3 14 50	0 58 56	16.3
7.00	17 2 2	1 40 24	15 21 37	+ 5 34 33	0 59 11	16.8
7.50	5 4 0	2 7 34	2 56 25	+ 7 49 24	0 59 23	17.3
8.00	17 5 58	2 35 10	14 30 48	+ 9 58 23	0 59 33	17.8
8.50	5 7 56	3 3 30	2 4 26	+12 0 25	0 59 40	18.3
9.00	17 9 55	3 32 2	13 37 52	+13 50 53	0 59 44	18.8
9.50	5 11 53	4 1 18	1 10 35	+15 29 45	0 59 46	19.3
10.00	17 13 51	4 30 41	12 43 9	+16 53 17	0 59 45	19.8
10.50	5 15 49	5 0 27	0 15 22	+18 0 55	0 59 42	20.3
11.00	17 17 48	5 30 41	11 47 6	+18 51 24	0 59 37	20.8
11.50	5 19 46	6 0 49	23 18 57	+19 23 21	0 59 30	21.3
12.00	17 21 44	6 31 10	10 50 34	+19 36 27	0 59 21	21.8
12.50	5 23 43	7 1 9	22 22 33	+19 30 56	0 59 12	22.3
13.00	17 25 41	7 30 50	9 54 51	+19 7 12	0 59 1	22.8
13.50	5 27 39	8 0 26	21 27 13	+18 25 16	0 58 50	23.3
14.00	17 29 37	8 29 16	9 0 21	+17 27 42	0 58 38	23.8
14.50	5 31 36	8 57 52	20 33 44	+16 14 9	0 58 25	24.3
15.00	17 33 34	9 25 36	8 7 57	+14 48 19	0 58 12	24.8
15.50	5 35 32	9 53 2	19 42 30	+13 9 32	0 57 58	25.3
16.00	17 37 31	10 19 38	7 17 52	+11 22 12	0 57 45	25.8
16.50	5 39 29	10 45 44	18 53 45	+ 9 26 46	0 57 30	26.3
17.00	17 41 27	11 11 33	6 29 54	+ 7 23 42	0 57 16	26.8
17.50	5 43 25	11 36 42	18 6 42	+ 5 17 29	0 57 1	27.3
18.00	17 45 24	12 1 44	5 43 40	+ 3 7 0	0 56 46	27.8
18.50	5 47 22	12 26 13	17 21 8	+ 0 56 46	0 56 31	28.3
19.00	17 49 20	12 50 28	4 58 51	- 1 13 4	0 56 16	28.8
19.50	5 51 19	13 14 48	16 36 30	- 3 22 31	0 56 2	29.3
20.00	17 53 17	13 38 46	4 14 30	- 5 27 16	0 55 47	.2
20.50	5 55 15	14 2 57	15 52 18	- 7 28 48	0 55 32	.7
21.00	17 57 13	14 26 53	3 30 20	- 9 23 9	0 55 18	1.2

21.50	5 59 12	14 50 53	15 8 18	-11 10 39	0 55 5	1.7
22.00	18 1 10	15 15 11	2 45 58	-12 51 6	0 54 53	2.2
22.50	6 3 8	15 39 23	14 23 45	-14 21 36	0 54 41	2.7
23.00	18 5 6	16 3 56	2 1 10	-15 42 58	0 54 31	3.2
23.50	6 7 5	16 28 24	13 38 40	-16 52 57	0 54 23	3.7
24.00	18 9 3	16 53 14	1 15 48	-17 52 5	0 54 16	4.2
24.50	6 11 1	17 17 58	12 53 3	-18 38 54	0 54 11	4.7
25.00	18 13 0	17 42 46	0 30 13	-19 13 25	0 54 8	5.2
25.50	6 14 58	18 7 58	12 7 0	-19 35 21	0 54 7	5.7
26.00	18 16 56	18 32 55	23 44 1	-19 44 20	0 54 8	6.2
26.50	6 18 54	18 58 12	11 20 42	-19 40 1	0 54 12	6.7
27.00	18 20 53	19 23 11	22 57 41	-19 22 59	0 54 19	7.2
27.50	6 22 51	19 48 12	10 34 38	-18 53 3	0 54 28	7.7
28.00	18 24 49	20 13 25	22 11 24	-18 9 39	0 54 39	8.2
28.50	6 26 48	20 38 21	9 48 26	-17 14 27	0 54 53	8.7
29.00	18 28 46	21 3 29	21 25 17	-16 6 11	0 55 10	9.2
29.50	6 30 44	21 28 21	9 2 23	-14 47 12	0 55 29	9.7
30.00	18 32 42	21 53 11	20 39 31	-13 17 15	0 55 50	10.2
30.50	6 34 41	22 18 17	8 16 23	-11 35 29	0 56 13	10.7
31.00	18 36 39	22 43 12	19 53 26	- 9 45 28	0 56 38	11.2
31.50	6 38 37	23 8 28	7 30 9	- 7 45 20	0 57 4	11.7

BULAN

2017 November

WPM	GST			R.A.			GHA			DEK			PAR			UMUR	
h	j	m	s	j	m	s	j	m	s	o	`	"	o	`	"	h	
1.00	18	40	35	23	33	40	19	6	55	-	5	39	0	0	57	30	12.2
1.50	6	42	34	23	59	19	6	43	14	-	3	24	53	0	57	57	12.7
2.00	18	44	32	0	25	3	18	19	28	-	1	7	25	0	58	24	13.2
2.50	6	46	30	0	51	9	5	55	21	+	1	13	10	0	58	50	13.7
3.00	18	48	29	1	17	55	17	30	33	+	3	36	23	0	59	14	14.2
3.50	6	50	27	1	44	58	5	5	29	+	5	57	16	0	59	36	14.7
4.00	18	52	25	2	12	48	16	39	37	+	8	16	4	0	59	56	15.2
4.50	6	54	23	2	41	1	4	13	22	+	10	27	50	1	0	12	15.7
5.00	18	56	22	3	9	50	15	46	31	+	12	31	9	1	0	25	16.2
5.50	6	58	20	3	39	32	3	18	48	+	14	24	26	1	0	34	16.7
6.00	19	0	18	4	9	32	14	50	46	+	16	3	9	1	0	39	17.2
6.50	7	2	17	4	40	18	2	21	58	+	17	26	45	1	0	39	17.7
7.00	19	4	15	5	11	10	13	53	5	+	18	31	58	1	0	36	18.2
7.50	7	6	13	5	42	16	1	23	56	+	19	18	12	1	0	29	18.7
8.00	19	8	11	6	13	41	12	54	30	+	19	44	25	1	0	19	19.2
8.50	7	10	10	6	44	43	0	25	26	+	19	50	23	1	0	6	19.7
9.00	19	12	8	7	15	42	11	56	25	+	19	36	4	0	59	51	20.2
9.50	7	14	6	7	46	0	23	28	6	+	19	3	4	0	59	33	20.7
10.00	19	16	4	8	15	56	11	0	8	+	18	11	36	0	59	15	21.2
10.50	7	18	3	8	44	59	22	33	3	+	17	4	43	0	58	55	21.7
11.00	19	20	1	9	13	18	10	6	42	+	15	43	40	0	58	35	22.2
11.50	7	21	59	9	41	9	21	40	50	+	14	8	59	0	58	14	22.7
12.00	19	23	58	10	8	2	9	15	55	+	12	25	8	0	57	54	23.2
12.50	7	25	56	10	34	30	20	51	26	+	10	31	19	0	57	34	23.7
13.00	19	27	54	11	0	7	8	27	47	+	8	32	10	0	57	15	24.2
13.50	7	29	52	11	25	12	20	4	40	+	6	28	7	0	56	57	24.7
14.00	19	31	51	11	50	3	7	41	47	+	4	19	12	0	56	39	25.2

14.50	7 33 49	12 14 19	19 19 30	+ 2 9 59	0 56 22	25.7
15.00	19 35 47	12 38 32	6 57 15	- 0 1 4	0 56 6	26.2
15.50	7 37 46	13 2 18	18 35 27	- 2 9 38	0 55 51	26.7
16.00	19 39 44	13 25 58	6 13 46	- 4 15 52	0 55 36	27.2
16.50	7 41 42	13 49 48	17 51 53	- 6 19 54	0 55 23	27.7
17.00	19 43 40	14 13 25	5 30 14	- 8 17 46	0 55 10	28.2
17.50	7 45 39	14 37 22	17 8 16	-10 10 54	0 54 58	28.7
18.00	19 47 37	15 1 10	4 46 27	-11 55 43	0 54 47	29.2
18.50	7 49 35	15 25 23	16 24 12	-13 33 28	0 54 37	.0
19.00	19 51 33	15 49 30	4 2 3	-15 1 3	0 54 28	.5
19.50	7 53 32	16 13 50	15 39 41	-16 18 44	0 54 20	1.0
20.00	19 55 30	16 38 35	3 16 55	-17 26 7	0 54 13	1.5
20.50	7 57 28	17 3 15	14 54 13	-18 21 25	0 54 8	2.0
21.00	19 59 27	17 28 18	2 31 8	-19 4 48	0 54 3	2.5
21.50	8 1 25	17 53 14	14 8 10	-19 35 20	0 54 0	3.0
22.00	20 3 23	18 18 12	1 45 11	-19 53 0	0 53 59	3.5
22.50	8 5 21	18 43 29	13 21 52	-19 57 24	0 53 59	4.0
23.00	20 7 20	19 8 28	0 58 52	-19 48 52	0 54 2	4.5
23.50	8 9 18	19 33 40	12 35 37	-19 26 46	0 54 6	5.0
24.00	20 11 16	19 58 30	0 12 46	-18 52 25	0 54 13	5.5
24.50	8 13 15	20 23 15	11 49 59	-18 5 37	0 54 22	6.0
25.00	20 15 13	20 48 7	23 27 5	-17 5 53	0 54 33	6.5
25.50	8 17 11	21 12 36	11 4 34	-15 55 32	0 54 46	7.0
26.00	20 19 9	21 37 15	22 41 54	-14 33 0	0 55 2	7.5
26.50	8 21 8	22 1 34	10 19 33	-13 1 21	0 55 20	8.0
27.00	20 23 6	22 25 51	21 57 14	-11 20 3	0 55 41	8.5
27.50	8 25 4	22 50 23	9 34 41	- 9 28 34	0 56 4	9.0
28.00	20 27 2	23 14 46	21 12 16	- 7 30 26	0 56 28	9.5
28.50	8 29 1	23 39 32	8 49 29	- 5 23 54	0 56 55	10.0
29.00	20 30 59	0 4 18	20 26 41	- 3 12 54	0 57 23	10.5
29.50	8 32 57	0 29 37	8 3 20	- 0 55 49	0 57 52	11.0
30.00	20 34 56	0 55 7	19 39 48	+ 1 22 55	0 58 21	11.5
30.50	8 36 54	1 21 8	7 15 46	+ 3 43 9	0 58 50	12.0

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2017            Desember

WPM	GST			R.A.			GHA			DEK			PAR			UMUR
h	j	m	s	j	m	s	j	m	s	o	`	"	o	`	"	h
1.00	20	38	52	1	47	58	18	50	54	+ 6	4	17	0	59	19	12.5
1.50	8	40	50	2	15	15	6	25	34	+ 8	21	24	0	59	46	13.0
2.00	20	42	49	2	43	31	17	59	17	+10	34	34	1	0	11	13.5
2.50	8	44	47	3	12	21	5	32	26	+12	38	51	1	0	33	14.0
3.00	20	46	45	3	41	57	17	4	48	+14	32	38	1	0	51	14.5
3.50	8	48	44	4	12	35	4	36	8	+16	13	57	1	1	5	15.0
4.00	20	50	42	4	43	38	16	7	3	+17	38	29	1	1	15	15.5
4.50	8	52	40	5	15	32	3	37	8	+18	45	13	1	1	19	16.0
5.00	20	54	38	5	47	31	15	7	7	+19	31	24	1	1	19	16.5
5.50	8	56	37	6	19	42	2	36	54	+19	56	25	1	1	13	17.0
6.00	20	58	35	6	52	4	14	6	30	+19	59	27	1	1	3	17.5
6.50	9	0	33	7	23	54	1	36	38	+19	41	17	1	0	49	18.0
7.00	21	2	31	7	55	29	13	7	2	+19	2	4	1	0	31	18.5
7.50	9	4	30	8	26	10	0	38	19	+18	4	35	1	0	10	19.0
8.00	21	6	28	8	56	19	12	10	9	+16	49	19	0	59	47	19.5

8.50	9 8 26	9 25 20	23 43 6	+15 20 29	0 59 21	20.0
9.00	21 10 25	9 53 30	11 16 54	+13 39 25	0 58 55	20.5
9.50	9 12 23	10 21 3	22 51 20	+11 47 11	0 58 29	21.0
10.00	21 14 21	10 47 34	10 26 47	+ 9 48 29	0 58 2	21.5
10.50	9 16 19	11 13 35	22 2 44	+ 7 42 43	0 57 36	22.0
11.00	21 18 18	11 38 44	9 39 33	+ 5 34 33	0 57 11	22.5
11.50	9 20 16	12 3 22	21 16 54	+ 3 24 17	0 56 47	23.0
12.00	21 22 14	12 27 47	8 54 27	+ 1 11 54	0 56 25	23.5
12.50	9 24 12	12 51 38	20 32 34	- 0 58 12	0 56 4	24.0
13.00	21 26 11	13 15 29	8 10 41	- 3 7 42	0 55 45	24.5
13.50	9 28 9	13 38 57	19 49 11	- 5 12 34	0 55 28	25.0
14.00	21 30 7	14 2 22	7 27 45	- 7 13 6	0 55 12	25.5
14.50	9 32 6	14 26 2	19 6 3	- 9 9 31	0 54 58	26.0
15.00	21 34 4	14 49 32	6 44 31	-10 58 13	0 54 45	26.5
15.50	9 36 2	15 13 26	18 22 36	-12 40 37	0 54 34	27.0
16.00	21 38 0	15 37 14	6 0 46	-14 13 32	0 54 25	27.5
16.50	9 39 59	16 1 31	17 38 27	-15 38 0	0 54 16	28.0
17.00	21 41 57	16 25 45	5 16 11	-16 51 27	0 54 10	28.5
17.50	9 43 55	16 50 13	16 53 41	-17 54 2	0 54 4	29.0
18.00	21 45 54	17 15 8	4 30 45	-18 45 16	0 54 0	29.5
18.50	9 47 52	17 39 59	16 7 53	-19 23 53	0 53 57	.2
19.00	21 49 50	18 5 12	3 44 38	-19 49 46	0 53 56	.7
19.50	9 51 48	18 30 15	15 21 33	-20 2 32	0 53 55	1.2
20.00	21 53 47	18 55 18	2 58 28	-20 2 8	0 53 56	1.7
20.50	9 55 45	19 20 36	14 35 8	-19 48 5	0 53 59	2.2
21.00	21 57 43	19 45 34	2 12 8	-19 21 22	0 54 2	2.7
21.50	9 59 41	20 10 40	13 49 1	-18 41 11	0 54 8	3.2
22.00	22 1 40	20 35 22	1 26 18	-17 49 22	0 54 14	3.7
22.50	10 3 38	20 59 52	13 3 46	-16 45 55	0 54 23	4.2
23.00	22 5 36	21 24 27	0 41 8	-15 30 11	0 54 33	4.7
23.50	10 7 35	21 48 37	12 18 58	-14 5 13	0 54 46	5.2
24.00	22 9 33	22 12 52	23 56 40	-12 29 19	0 55 0	5.7
24.50	10 11 31	22 36 46	11 34 44	-10 46 0	0 55 16	6.2
25.00	22 13 29	23 0 51	23 12 38	- 8 53 21	0 55 34	6.7
25.50	10 15 28	23 24 43	10 50 45	- 6 55 13	0 55 54	7.2
26.00	22 17 26	23 48 39	22 28 46	- 4 51 6	0 56 16	7.7
26.50	10 19 24	0 13 0	10 6 24	- 2 40 39	0 56 40	8.2
27.00	22 21 23	0 37 23	21 43 59	- 0 27 58	0 57 6	8.7
27.50	10 23 21	1 2 21	9 20 59	+ 1 48 34	0 57 33	9.2
28.00	22 25 19	1 27 34	20 57 45	+ 4 4 35	0 58 0	9.7
28.50	10 27 17	1 53 21	8 33 56	+ 6 19 55	0 58 29	10.2
29.00	22 29 16	2 20 3	20 9 12	+ 8 33 53	0 58 58	10.7
29.50	10 31 14	2 47 16	7 43 57	+10 41 54	0 59 26	11.2
30.00	22 33 12	3 15 34	19 17 38	+12 43 49	0 59 53	11.7
30.50	10 35 10	3 44 29	6 50 40	+14 35 7	1 0 18	12.2
31.00	22 37 9	4 14 17	18 22 51	+16 14 9	1 0 40	12.7
31.50	10 39 7	4 45 11	5 53 55	+17 38 52	1 0 59	13.2

BULAN

2017 Januari

WPM	GST	R.A.	GHA	DEK	PAR	UMUR
h	j m s	j m s	j m s	o \ "	o \ "	h
1.00	22 41 5	5 16 33	17 24 32	+18 45 31	1 1 13	13.7