

Table of corrections to mean of four microscopes for errors of division. Argument, reading of horizontal microscope.

Arg.	Circle A.	Circle B.	Arg.	Circle A.	Circle B.
0	"	"	0	"	"
1	+0.12	+0.30	45	+0.02	-0.01
2	+	.23	46	.00	.00
3	-.00	.18	47	-.02	.00
4	-.05	.18	48	-.04	.00
5	-.11	.22	49	-.04	+.06
6	-.17	.27	50	-.04	.12
7	-.10	.27	51	-.06	.12
8	-.02	.26	52	-.22	.12
9	+.04	.26	53	-.20	.13
10	.07	.27	54	-.16	.14
11	.06	.29	55	-.12	.15
12	.10	.29	56	-.12	.16
13	.13	.36	57	-.13	.17
14	.20	.44	58	-.13	.19
15	.28	.52	59	-.12	.20
16	.27	.56	60	+.05	.22
17	.24	.57	61	+.05	.26
18	.23	.57	62	.05	.28
19	.20	.52	63	.05	.27
20	.18	.48	64	.02	.25
21	.17	.49	65	.00	.29
22	.16	.52	66	.02	.22
23	+.10	.53	67	.09	.22
24	-.02	.50	68	.15	.22
25	-.14	.46	69	.14	.23
26	-.18	.44	70	+.08	.24
27	-.22	.42	71	-.03	.25
28	-.24	.40	72	-.12	.27
29	-.20	.34	73	-.12	.28
30	-.16	.27	74	-.05	.31
31	-.23	.24	75	+.04	.35
32	-.29	.22	76	.04	.40
33	-.32	.19	77	.02	.45
34	-.35	.15	78	.00	.46
35	-.37	.11	79	.01	.45
36	-.36	.12	80	.12	.44
37	-.36	.15	81	.16	.41
38	-.36	.14	82	.17	.38
39	-.29	.08	83	.18	.36
40	-.22	+.02	84	.19	.36
41	-.17	-.07	85	.20	.36
42	-.12	-.12	86	.23	.40
43	-.06	-.13	87	.25	.44
44	-.02	-.07	88	.25	.44
45	+0.02	-0.01	89	.19	.37
			90	+0.12	+0.30

The corrections thus obtained were now made continuous, and the above table was formed in the following way. Represent the correction for y° by (Y). Then, for circle A was taken

$$[1\frac{1}{2}] = \frac{1}{2} \{ (1) + (1\frac{1}{2}) + (2) \},$$

$$[3\frac{1}{2}] = \frac{1}{2} \{ (3) + (3\frac{1}{2}) + (4) \},$$

&c., &c.

$$[0] = \frac{1}{2} \{ [88\frac{1}{2}] + (0) + [1\frac{1}{2}] \},$$

$$[5] = \frac{1}{2} \{ [3\frac{1}{2}] + (5) + [6\frac{1}{2}] \},$$

&c., &c.

$$[2\frac{1}{2}] = \frac{1}{2} \{ (2) + (3) \},$$

$$[7\frac{1}{2}] = \frac{1}{2} \{ (7) + (8) \},$$

&c., &c.

$$[[2\frac{1}{2}]] = \frac{1}{2} \{ [1\frac{1}{2}] + [2\frac{1}{2}] + [3\frac{1}{2}] \},$$

$$[[7\frac{1}{2}]] = \frac{1}{2} \{ [3\frac{1}{2}] + [7\frac{1}{2}] + [8\frac{1}{2}] \},$$

&c., &c.