

Correction de minutes

Calcul pour la Latitude $45,4^\circ$ et longitude $-74,03$ UTC-5 pour le 01-01

Correction de minutes pour la latitude

Nous calculerons la proportion réelle de notre latitude entre 45° et 50° . Puisque ces latitudes sont distantes de 5° , et que ma latitude est de $0,4^\circ (45,4^\circ - 40^\circ)$ de 40° vers 45° , la proportion réelle est :

$$0,4^\circ / 5^\circ = 0,08$$

La différence entre le 45° et 50° : $7:58:31 - 7:38:17 = +20 \text{ m } 14\text{s} = 20,23$ ($14/60 = 0.23$)

On additionne si le résultat est positif, on soustrait si le résultat est négatif.

Nous multiplions 0,08 par 20.23:

$$0,08 \times 20,57\text{m} = 1,62 \text{ m} = 1\text{m } 37\text{s} \quad (0.65 * 62 = 37,2)$$

Puis on additionne le résultat de l'heure à 45° pour le 01-01, soit 7:38:17 :

$$7:38:17 + 1\text{m } 37\text{s} = \mathbf{07:39:55 \text{ (correction pour la latitude)}}$$

Correction de minutes pour la longitude

74,03 pour notre exemple, $74^\circ 2'$ ($0.03 \times 60 = 1,8$)

Avec le tableau Conversion of Arc to Time (appelé Conversion d'arc en temps) qui vous permet de rechercher l'heure à partir de cette longitude :

$$74^\circ 2' = 4\text{h } 56 \text{ m}, 2 \text{ minutes} = 8\text{s}$$

Ajoutez 4h 56 m 8s à **07:39:55 (correction pour la latitude)**

$$07:39:55 + 4:56:08 = 12:36:03$$

On a addition ou on soustrait notre UTC (-5 dans notre exemple)

$$12:36:03 - 5 = \mathbf{07:36:03 = \text{l'heure corrigée}}$$

Conversion of Arc to Time

0° - 59°			60° - 119°			120° - 179°			180° - 239°			240° - 299°			300° - 360°			0' - 59'			0" - 59"	
°	h	m	°	h	m	°	h	m	°	h	m	°	h	m	°	h	m	'	m	s	"	s
0	0	00	60	4	00	120	8	00	180	12	00	240	16	00	300	20	00	0	0	00	0	0.00
1	0	04	61	4	04	121	8	04	181	12	04	241	16	04	301	20	04	1	0	04	1	0.07
2	0	08	62	4	08	122	8	08	182	12	08	242	16	08	302	20	08	2	0	08	2	0.13
3	0	12	63	4	12	123	8	12	183	12	12	243	16	12	303	20	12	3	0	12	3	0.20
4	0	16	64	4	16	124	8	16	184	12	16	244	16	16	304	20	16	4	0	16	4	0.27
5	0	20	65	4	20	125	8	20	185	12	20	245	16	20	305	20	20	5	0	20	5	0.33
6	0	24	66	4	24	126	8	24	186	12	24	246	16	24	306	20	24	6	0	24	6	0.40
7	0	28	67	4	28	127	8	28	187	12	28	247	16	28	307	20	28	7	0	28	7	0.47
8	0	32	68	4	32	128	8	32	188	12	32	248	16	32	308	20	32	8	0	32	8	0.53
9	0	36	69	4	36	129	8	36	189	12	36	249	16	36	309	20	36	9	0	36	9	0.60
10	0	40	70	4	40	130	8	40	190	12	40	250	16	40	310	20	40	10	0	40	10	0.67
11	0	44	71	4	44	131	8	44	191	12	44	251	16	44	311	20	44	11	0	44	11	0.73
12	0	48	72	4	48	132	8	48	192	12	48	252	16	48	312	20	48	12	0	48	12	0.80
13	0	52	73	4	52	133	8	52	193	12	52	253	16	52	313	20	52	13	0	52	13	0.87
14	0	56	74	4	56	134	8	56	194	12	56	254	16	56	314	20	56	14	0	56	14	0.93
15	1	00	75	5	00	135	9	00	195	13	00	255	17	00	315	21	00	15	1	00	15	1.00
16	1	04	76	5	04	136	9	04	196	13	04	256	17	04	316	21	04	16	1	04	16	1.07
17	1	08	77	5	08	137	9	08	197	13	08	257	17	08	317	21	08	17	1	08	17	1.13
18	1	12	78	5	12	138	9	12	198	13	12	258	17	12	318	21	12	18	1	12	18	1.20
19	1	16	79	5	16	139	9	16	199	13	16	259	17	16	319	21	16	19	1	16	19	1.27
20	1	20	80	5	20	140	9	20	200	13	20	260	17	20	320	21	20	20	1	20	20	1.33
21	1	24	81	5	24	141	9	24	201	13	24	261	17	24	321	21	24	21	1	24	21	1.40
22	1	28	82	5	28	142	9	28	202	13	28	262	17	28	322	21	28	22	1	28	22	1.47
23	1	32	83	5	32	143	9	32	203	13	32	263	17	32	323	21	32	23	1	32	23	1.53
24	1	36	84	5	36	144	9	36	204	13	36	264	17	36	324	21	36	24	1	36	24	1.60
25	1	40	85	5	40	145	9	40	205	13	40	265	17	40	325	21	40	25	1	40	25	1.67
26	1	44	86	5	44	146	9	44	206	13	44	266	17	44	326	21	44	26	1	44	26	1.73
27	1	48	87	5	48	147	9	48	207	13	48	267	17	48	327	21	48	27	1	48	27	1.80
28	1	52	88	5	52	148	9	52	208	13	52	268	17	52	328	21	52	28	1	52	28	1.87
29	1	56	89	5	56	149	9	56	209	13	56	269	17	56	329	21	56	29	1	56	29	1.93
30	2	00	90	6	00	150	10	00	210	14	00	270	18	00	330	22	00	30	2	00	30	2.00
31	2	04	91	6	04	151	10	04	211	14	04	271	18	04	331	22	04	31	2	04	31	2.07
32	2	08	92	6	08	152	10	08	212	14	08	272	18	08	332	22	08	32	2	08	32	2.13
33	2	12	93	6	12	153	10	12	213	14	12	273	18	12	333	22	12	33	2	12	33	2.20
34	2	16	94	6	16	154	10	16	214	14	16	274	18	16	334	22	16	34	2	16	34	2.27
35	2	20	95	6	20	155	10	20	215	14	20	275	18	20	335	22	20	35	2	20	35	2.33
36	2	24	96	6	24	156	10	24	216	14	24	276	18	24	336	22	24	36	2	24	36	2.40
37	2	28	97	6	28	157	10	28	217	14	28	277	18	28	337	22	28	37	2	28	37	2.47
38	2	32	98	6	32	158	10	32	218	14	32	278	18	32	338	22	32	38	2	32	38	2.53
39	2	36	99	6	36	159	10	36	219	14	36	279	18	36	339	22	36	39	2	36	39	2.60
40	2	40	100	6	40	160	10	40	220	14	40	280	18	40	340	22	40	40	2	40	40	2.67
41	2	44	101	6	44	161	10	44	221	14	44	281	18	44	341	22	44	41	2	44	41	2.73
42	2	48	102	6	48	162	10	48	222	14	48	282	18	48	342	22	48	42	2	48	42	2.80
43	2	52	103	6	52	163	10	52	223	14	52	283	18	52	343	22	52	43	2	52	43	2.87
44	2	56	104	6	56	164	10	56	224	14	56	284	18	56	344	22	56	44	2	56	44	2.93
45	3	00	105	7	00	165	11	00	225	15	00	285	19	00	345	23	00	45	3	00	45	3.00
46	3	04	106	7	04	166	11	04	226	15	04	286	19	04	346	23	04	46	3	04	46	3.07
47	3	08	107	7	08	167	11	08	227	15	08	287	19	08	347	23	08	47	3	08	47	3.13
48	3	12	108	7	12	168	11	12	228	15	12	288	19	12	348	23	12	48	3	12	48	3.20
49	3	16	109	7	16	169	11	16	229	15	16	289	19	16	349	23	16	49	3	16	49	3.27
50	3	20	110	7	20	170	11	20	230	15	20	290	19	20	350	23	20	50	3	20	50	3.33
51	3	24	111	7	24	171	11	24	231	15	24	291	19	24	351	23	24	51	3	24	51	3.40
52	3	28	112	7	28	172	11	28	232	15	28	292	19	28	352	23	28	52	3	28	52	3.47
53	3	32	113	7	32	173	11	32	233	15	32	293	19	32	353	23	32	53	3	32	53	3.53
54	3	36	114	7	36	174	11	36	234	15	36	294	19	36	354	23	36	54	3	36	54	3.60
55	3	40	115	7	40	175	11	40	235	15	40	295	19	40	355	23	40	55	3	40	55	3.67
56	3	44	116	7	44	176	11	44	236	15	44	296	19	44	356	23	44	56	3	44	56	3.73
57	3	48	117	7	48	177	11	48	237	15	48	297	19	48	357	23	48	57	3	48	57	3.80
58	3	52	118	7	52	178	11	52	238	15	52	298	19	52	358	23	52	58	3	52	58	3.87
59	3	56	119	7	56	179	11	56	239	15	56	299	19	56	359	23	56	59	3	56	59	3.93
60	4	00	120	8	00	180	12	00	240	16	00	300	20	00	360	24	00	60	4	00	60	4.00

h= hours of time m= minutes of time s = seconds of time ' = minutes of arc " = seconds of arc

Temps moyen de Greenwich (GMT) UTC 0 Latitude Sud

	-50°		-52°		-54°		-56°		-58°		-60°		-62°		-64°	
Date	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher
01-01-24	3:55:04	20:11:36	3:44:29	20:22:11	3:32:30	20:34:10	3:18:42	20:47:58	3:02:28	21:04:11	2:42:49	21:23:51	2:17:49	21:48:51	1:42:52	22:23:47
02-01-24	3:56:06	20:11:30	3:45:34	20:22:02	3:33:40	20:33:56	3:19:57	20:47:39	3:03:51	21:03:45	2:44:22	21:23:14	2:19:39	21:47:57	1:45:17	22:22:19
03-01-24	3:57:10	20:11:21	3:46:43	20:21:49	3:34:53	20:33:39	3:21:17	20:47:15	3:05:18	21:03:13	2:46:00	21:22:32	2:21:34	21:46:57	1:47:49	22:20:43
04-01-24	3:58:18	20:11:09	3:47:54	20:21:32	3:36:09	20:33:17	3:22:39	20:46:47	3:06:49	21:02:37	2:47:43	21:21:44	2:23:36	21:45:51	1:50:28	22:18:58
05-01-24	3:59:27	20:10:54	3:49:08	20:21:12	3:37:29	20:32:52	3:24:06	20:46:15	3:08:25	21:01:56	2:49:30	21:20:50	2:25:43	21:44:38	1:53:14	22:17:07
06-01-24	4:00:39	20:10:35	3:50:25	20:20:49	3:38:51	20:32:23	3:25:35	20:45:39	3:10:04	21:01:10	2:51:22	21:19:52	2:27:55	21:43:19	1:56:06	22:15:08
07-01-24	4:01:53	20:10:13	3:51:45	20:20:22	3:40:17	20:31:50	3:27:08	20:44:58	3:11:46	21:00:20	2:53:19	21:18:48	2:30:12	21:41:54	1:59:03	22:13:04
08-01-24	4:03:10	20:09:48	3:53:06	20:19:52	3:41:45	20:31:13	3:28:44	20:44:14	3:13:32	20:59:25	2:55:19	21:17:39	2:32:34	21:40:24	2:02:05	22:10:53
09-01-24	4:04:29	20:09:20	3:54:31	20:19:18	3:43:16	20:30:33	3:30:23	20:43:25	3:15:22	20:58:26	2:57:23	21:16:25	2:35:00	21:38:48	2:05:12	22:08:36
10-01-24	4:05:49	20:08:48	3:55:57	20:18:41	3:44:49	20:29:49	3:32:05	20:42:33	3:17:15	20:57:23	2:59:31	21:15:07	2:37:31	21:37:07	2:08:23	22:06:15
11-01-24	4:07:12	20:08:14	3:57:26	20:18:00	3:46:25	20:29:01	3:33:50	20:41:36	3:19:11	20:56:15	3:01:42	21:13:44	2:40:05	21:35:21	2:11:38	22:03:48
12-01-24	4:08:37	20:07:37	3:58:57	20:17:17	3:48:03	20:28:10	3:35:37	20:40:36	3:21:10	20:55:04	3:03:57	21:12:17	2:42:43	21:33:31	2:14:56	22:01:17
13-01-24	4:10:03	20:06:56	4:00:29	20:16:30	3:49:44	20:27:16	3:37:27	20:39:32	3:23:11	20:53:48	3:06:14	21:10:45	2:45:24	21:31:36	2:18:17	21:58:42
14-01-24	4:11:31	20:06:13	4:02:04	20:15:40	3:51:26	20:26:18	3:39:19	20:38:25	3:25:16	20:52:28	3:08:35	21:09:09	2:48:08	21:29:36	2:21:41	21:56:03
15-01-24	4:13:01	20:05:27	4:03:41	20:14:47	3:53:11	20:25:17	3:41:13	20:37:14	3:27:22	20:51:05	3:10:58	21:07:29	2:50:55	21:27:33	2:25:07	21:53:20
16-01-24	4:14:32	20:04:37	4:05:19	20:13:51	3:54:57	20:24:12	3:43:10	20:36:00	3:29:31	20:49:38	3:13:24	21:05:46	2:53:44	21:25:25	2:28:35	21:50:35
17-01-24	4:16:05	20:03:46	4:06:59	20:12:52	3:56:45	20:23:05	3:45:08	20:34:42	3:31:43	20:48:08	3:15:52	21:03:59	2:56:36	21:23:14	2:32:05	21:47:45
18-01-24	4:17:39	20:02:51	4:08:40	20:11:50	3:58:35	20:21:54	3:47:09	20:33:21	3:33:56	20:46:34	3:18:22	21:02:08	2:59:30	21:21:00	2:35:36	21:44:53
19-01-24	4:19:14	20:01:54	4:10:23	20:10:45	4:00:27	20:20:41	3:49:11	20:31:57	3:36:11	20:44:57	3:20:54	21:00:14	3:02:26	21:18:42	2:39:09	21:41:59
20-01-24	4:20:51	20:00:54	4:12:07	20:09:38	4:02:20	20:19:24	3:51:14	20:30:30	3:38:28	20:43:16	3:23:28	20:58:16	3:05:24	21:16:21	2:42:43	21:39:01
21-01-24	4:22:29	19:59:51	4:13:52	20:08:27	4:04:14	20:18:05	3:53:20	20:29:00	3:40:47	20:41:33	3:26:04	20:56:15	3:08:23	21:13:57	2:46:18	21:36:02
22-01-24	4:24:07	19:58:46	4:15:39	20:07:14	4:06:10	20:16:43	3:55:26	20:27:27	3:43:07	20:39:46	3:28:41	20:54:12	3:11:24	21:11:30	2:49:53	21:33:00
23-01-24	4:25:47	19:57:38	4:17:26	20:05:59	4:08:07	20:15:18	3:57:34	20:25:51	3:45:28	20:37:57	3:31:20	20:52:05	3:14:25	21:09:00	2:53:29	21:29:56
24-01-24	4:27:28	19:56:28	4:19:15	20:04:41	4:10:05	20:13:51	3:59:43	20:24:12	3:47:51	20:36:05	3:34:00	20:49:56	3:17:28	21:06:27	2:57:05	21:26:50
25-01-24	4:29:09	19:55:16	4:21:05	20:03:20	4:12:04	20:12:21	4:01:53	20:22:31	3:50:14	20:34:10	3:36:41	20:47:44	3:20:32	21:03:52	3:00:42	21:23:43
26-01-24	4:30:51	19:54:01	4:22:55	20:01:57	4:14:04	20:10:48	4:04:04	20:20:47	3:52:39	20:32:13	3:39:23	20:45:29	3:23:37	21:01:15	3:04:18	21:20:34
27-01-24	4:32:34	19:52:44	4:24:46	20:00:31	4:16:04	20:09:13	4:06:16	20:19:01	3:55:05	20:30:13	3:42:05	20:43:12	3:26:42	20:58:36	3:07:55	21:17:23
28-01-24	4:34:17	19:51:24	4:26:38	19:59:04	4:18:06	20:07:36	4:08:29	20:17:12	3:57:31	20:28:10	3:44:49	20:40:53	3:29:47	20:55:54	3:11:31	21:14:11
29-01-24	4:36:01	19:50:03	4:28:30	19:57:34	4:20:08	20:05:56	4:10:43	20:15:21	3:59:59	20:26:06	3:47:33	20:38:31	3:32:53	20:53:11	3:15:07	21:10:57
30-01-24	4:37:46	19:48:39	4:30:23	19:56:02	4:22:11	20:04:14	4:12:57	20:13:28	4:02:26	20:23:59	3:50:18	20:36:07	3:36:00	20:50:25	3:18:43	21:07:42
31-01-24	4:39:31	19:47:13	4:32:17	19:54:28	4:24:14	20:02:30	4:15:11	20:11:33	4:04:55	20:21:49	3:53:03	20:33:41	3:39:06	20:47:38	3:22:18	21:04:26

Temps moyen de Greenwich (GMT) UTC 0 Latitude Sud

	-50°		-52°		-54°		-56°		-58°		-60°		-62°		-64°	
Date	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher
01-02-24	4:41:16	19:45:46	4:34:10	19:52:51	4:26:17	20:00:44	4:17:27	20:09:35	4:07:23	20:19:38	3:55:48	20:31:13	3:42:13	20:44:49	3:25:53	21:01:09
02-02-24	4:43:01	19:44:16	4:36:05	19:51:13	4:28:22	19:58:56	4:19:42	20:07:36	4:09:53	20:17:25	3:58:34	20:28:44	3:45:19	20:41:58	3:29:27	20:57:50
03-02-24	4:44:47	19:42:45	4:37:59	19:49:33	4:30:26	19:57:06	4:21:58	20:05:34	4:12:22	20:15:10	4:01:20	20:26:12	3:48:26	20:39:06	3:33:01	20:54:31
04-02-24	4:46:33	19:41:11	4:39:54	19:47:51	4:32:30	19:55:14	4:24:14	20:03:31	4:14:52	20:12:53	4:04:06	20:23:39	3:51:32	20:36:12	3:36:34	20:51:10
05-02-24	4:48:19	19:39:36	4:41:49	19:46:07	4:34:35	19:53:20	4:26:30	20:01:25	4:17:21	20:10:34	4:06:52	20:21:04	3:54:38	20:33:17	3:40:06	20:47:49
06-02-24	4:50:06	19:37:59	4:43:44	19:44:21	4:36:40	19:51:25	4:28:47	19:59:18	4:19:51	20:08:14	4:09:38	20:18:27	3:57:44	20:30:21	3:43:38	20:44:27
07-02-24	4:51:52	19:36:21	4:45:39	19:42:34	4:38:45	19:49:27	4:31:03	19:57:09	4:22:21	20:05:52	4:12:24	20:15:49	4:00:50	20:27:23	3:47:08	20:41:04
08-02-24	4:53:38	19:34:40	4:47:34	19:40:45	4:40:50	19:47:28	4:33:20	19:54:59	4:24:51	20:03:28	4:15:09	20:13:09	4:03:55	20:24:24	3:50:38	20:37:41
09-02-24	4:55:25	19:32:58	4:49:29	19:38:54	4:42:55	19:45:28	4:35:36	19:52:47	4:27:20	20:01:03	4:17:55	20:10:29	4:06:59	20:21:24	3:54:07	20:34:16
10-02-24	4:57:11	19:31:15	4:51:24	19:37:02	4:45:01	19:43:26	4:37:52	19:50:34	4:29:50	19:58:36	4:20:40	20:07:46	4:10:04	20:18:23	3:57:35	20:30:52
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Temps moyen de Greenwich (GMT) UTC 0 Latitude Sud

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Temps moyen de Greenwich (GMT) UTC 0 Latitude Sud

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Date	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher
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Temps moyen de Greenwich (GMT) UTC 0 Latitude Sud

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Temps moyen de Greenwich (GMT) UTC 0 Latitude Sud

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Temps moyen de Greenwich (GMT) UTC 0 Latitude Sud

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Date	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher
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Temps moyen de Greenwich (GMT) UTC 0 Latitude Sud

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Temps moyen de Greenwich (GMT) UTC 0 Latitude Sud

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Temps moyen de Greenwich (GMT) UTC 0 Latitude Sud

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Temps moyen de Greenwich (GMT) UTC 0 Latitude Sud

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Temps moyen de Greenwich (GMT) UTC 0 Latitude Sud

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Date	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher	Lever	Coucher
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