

EduSahara™ Learning Center Assignment

Grade : Class X, ICSE

Chapter : Trigonometrical Identities

Name : Trigonometric Ratios using Trigonometric Tables

Find the value of $\sin 27^\circ 19'$

1.

From Table of Natural Sines															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
27	0.4540	0.4555	0.4571	0.4586	0.4602	0.4617	0.4633	0.4648	0.4664	0.4679	3	5	8	11	13

(i) 0.4586 (ii) 0.4593 (iii) 0.4592 (iv) 0.4589 (v) 0.4585

Find the value of $\cos 43^\circ 32'$

2.

From Table of Natural Cosines															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
43	0.7314	0.7302	0.7290	0.7278	0.7266	0.7254	0.7242	0.7230	0.7218	0.7206	2	4	6	8	10

(i) 0.7253 (ii) 0.725 (iii) 0.7254 (iv) 0.7247 (v) 0.7246

Find the value of $\tan 46^\circ 47'$

3.

From Table of Natural Tangents															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
46	1.0355	1.0392	1.0428	1.0464	1.0501	1.0538	1.0575	1.0612	1.0649	1.0686	6	12	18	25	31

(i) 1.0643 (ii) 1.0646 (iii) 1.0639 (iv) 1.0647 (v) 1.064

Find angle θ such that $\sin \theta = 0.8146$

4.

From Table of Natural Sines															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
54	0.8090	0.8100	0.8111	0.8121	0.8131	0.8141	0.8151	0.8161	0.8171	0.8181	2	3	5	7	8

(i) $54^\circ 28'$ (ii) $54^\circ 23'$ (iii) $54^\circ 33'$ (iv) $54^\circ 43'$ (v) $54^\circ 38'$

Find angle θ such that $\cos \theta = 0.9713$

5.

From Table of Natural Cosines															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
13	0.9744	0.9740	0.9736	0.9732	0.9728	0.9724	0.9720	0.9715	0.9711	0.9707	1	1	2	3	3

(i) $13^\circ 35'$ (ii) $13^\circ 40'$ (iii) $13^\circ 50'$ (iv) $13^\circ 55'$ (v) $13^\circ 45'$

Find angle θ such that $\tan \theta = 1.1363$

6.

From Table of Natural Tangents															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
48	1.1106	1.1145	1.1184	1.1224	1.1263	1.1303	1.1343	1.1383	1.1423	1.1463	7	13	20	27	33

(i) $48^\circ 34'$ (ii) $48^\circ 49'$ (iii) $48^\circ 44'$ (iv) $48^\circ 29'$ (v) $48^\circ 39'$

Find the value of $\sin 25^\circ 42'$

7.

From Table of Natural Sines															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
25	0.4226	0.4242	0.4258	0.4274	0.4289	0.4305	0.4321	0.4337	0.4352	0.4368	3	5	8	11	13

(i) 0.4341 (ii) 0.4334 (iii) 0.4337 (iv) 0.434 (v) 0.4333

Find the value of $\cos 67^\circ 18'$

8.

From Table of Natural Cosines															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
67	0.3907	0.3891	0.3875	0.3859	0.3843	0.3827	0.3811	0.3795	0.3778	0.3762	3	5	8	11	13

(i) 0.3859 (ii) 0.3862 (iii) 0.3856 (iv) 0.3863 (v) 0.3855

Find the value of $\tan 10^\circ 40'$

9.

From Table of Natural Tangents															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
10	0.1763	0.1781	0.1799	0.1817	0.1835	0.1853	0.1871	0.1890	0.1908	0.1926	3	6	9	12	15

(i) 0.1886 (ii) 0.1887 (iii) 0.1883 (iv) 0.1879 (v) 0.188

Find angle θ such that $\sin \theta = 0.2345$

10.

From Table of Natural Sines															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
13	0.2250	0.2267	0.2284	0.2300	0.2317	0.2334	0.2351	0.2368	0.2385	0.2402	3	6	8	11	14

(i) $13^\circ 39'$ (ii) $13^\circ 29'$ (iii) $13^\circ 24'$ (iv) $13^\circ 44'$ (v) $13^\circ 34'$

Find angle θ such that $\cos \theta = 0.8813$

11.

From Table of Natural Cosines															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
28	0.8829	0.8821	0.8813	0.8805	0.8796	0.8788	0.8780	0.8771	0.8763	0.8755	1	3	4	5	7

(i) $28^\circ 2'$ (ii) $28^\circ 22'$ (iii) $28^\circ 17'$ (iv) $28^\circ 12'$ (v) $28^\circ 7'$

Find angle θ such that $\tan \theta = 0.7486$

12.

From Table of Natural Tangents															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
36	0.7265	0.7292	0.7319	0.7346	0.7373	0.7400	0.7427	0.7454	0.7481	0.7508	5	9	14	18	23

(i) $36^\circ 44'$ (ii) $36^\circ 49'$ (iii) $36^\circ 59'$ (iv) $36^\circ 54'$ (v) $36^\circ 39'$

Assignment Key

- 1) (iv)
- 2) (ii)
- 3) (i)
- 4) (iii)
- 5) (v)
- 6) (v)
- 7) (iii)
- 8) (i)
- 9) (iii)
- 10) (v)
- 11) (iv)
- 12) (ii)