EduSahara™ Assignment

Name : Trigonometric Ratios using Trigonometric Tables

Chapter : Trigonometrical Identities

Grade : ICSE Grade X

1. Find the value of $\sin 63° 16'$

From Table of Natural Sines

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
63	0.8910	0.8918	0.8926	0.8934	0.8942	0.8949	0.8957	0.8963	0.8973	0.8980	1	3	4	5	7

(i) 0.8935 (ii) 0.8927 (iii) 0.8928 (iv) 0.8934 (v) 0.8931

2. Find the value of $\cos 28° 11'$

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) 0.8811 (ii) 0.8814 (iii) 0.8817 (iv) 0.8818 (v) 0.881

3. Find the value of $\tan 16° 47'$

From Table of Natural Tangents

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
16	0.2867	0.2886	0.2905	0.2924	0.2943	0.2962	0.2981	0.3000	0.3019	0.3038	3	6	9	13	16

(i) 0.302 (ii) 0.3012 (iii) 0.3016 (iv) 0.3013 (v) 0.3019

4. Find angle θ such that $\sin\theta = 0.8704$

From Table of Natural Sines

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
60	0.8660	0.8669	0.8678	0.8686	0.8695	0.8704	0.8712	0.8721	0.8729	0.8738	1	3	4	6	7

(i) 60° 40' (ii) 60° 30' (iii) 60° 20' (iv) 60° 25' (v) 60° 35'

5. Find angle θ such that $\cos\theta = 0.9638$

From Table of Natural Cosines

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
15	0.9659	0.9655	0.9650	0.9646	0.9641	0.9636	0.9632	0.9627	0.9622	0.9617	1	2	2	3	4

(i) 15° 28' (ii) 15° 23' (iii) 15° 18' (iv) 15° 33' (v) 15° 38'

6. Find angle θ such that $\tan\theta = 2.1091$

From Table of Natural Tangents

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
64	2.0503	2.0594	2.0686	2.0778	2.0872	2.0965	2.1060	2.1155	2.1251	2.1348	16	31	47	63	78

(i) 64° 48' (ii) 64° 33' (iii) 64° 28' (iv) 64° 43' (v) 64° 38'

7. Find the value of $\sin 47° 27'$

From Table of Natural Sines

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
47	0.7314	0.7325	0.7337	0.7349	0.7361	0.7373	0.7385	0.7396	0.7408	0.7420	2	4	6	8	10

(i) 0.7364 (ii) 0.7363 (iii) 0.7367 (iv) 0.7371 (v) 0.737

8. Find the value of $\cos 44° 13'$

From Table of Natural Cosines

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
44	0.7193	0.7181	0.7169	0.7157	0.7145	0.7133	0.7120	0.7108	0.7096	0.7083	2	4	6	8	10

(i) 0.7171 (ii) 0.7163 (iii) 0.7164 (iv) 0.7167 (v) 0.717

9. Find the value of $\tan 28° 31'$

From Table of Natural Tangents															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
28	0.5317	0.5340	0.5362	0.5384	0.5407	0.5430	0.5452	0.5475	0.5498	0.5520	4	8	11	15	19

(i) 0.543 (ii) 0.5437 (iii) 0.5434 (iv) 0.5431 (v) 0.5438

10. Find angle θ such that $\sin\theta = 0.4591$

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) 27° 20' (ii) 27° 30' (iii) 27° 25' (iv) 27° 15' (v) 27° 10'

11. Find angle θ such that $\cos\theta = 0.7112$

From Table of Natural Cosines															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
44	0.7193	0.7181	0.7169	0.7157	0.7145	0.7133	0.7120	0.7108	0.7096	0.7083	2	4	6	8	10

(i) 44° 30' (ii) 44° 50' (iii) 44° 35' (iv) 44° 45' (v) 44° 40'

12. Find angle θ such that $\tan\theta = 0.4512$

From Table of Natural Tangents															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
24	0.4452	0.4473	0.4494	0.4515	0.4536	0.4557	0.4578	0.4599	0.4621	0.4642	4	7	11	14	18

(i) 24° 27' (ii) 24° 17' (iii) 24° 22' (iv) 24° 12' (v) 24° 7'

Assignment Key

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