EduSahara™ Assignment

Name : Trigonometric Ratios using Trigonometric Tables

Chapter : Trigonometrical Identities

Grade : ICSE Grade X

1. Find the value of $\sin 62° 10'$

From Table of Natural Sines

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
62	0.8829	0.8838	0.8846	0.8854	0.8862	0.8870	0.8878	0.8886	0.8894	0.8902	1	3	4	5	7

(i) 0.884 (ii) 0.8846 (iii) 0.8839 (iv) 0.8843 (v) 0.8847

2. Find the value of $\cos 39° 44'$

From Table of Natural Cosines

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
39	0.7771	0.7760	0.7749	0.7738	0.7727	0.7216	0.7705	0.7694	0.7683	0.7672	2	4	6	7	9

(i) 0.7694 (ii) 0.7687 (iii) 0.7693 (iv) 0.769 (v) 0.7686

3. Find the value of $\tan 56° 20'$

From Table of Natural Tangents

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
56	1.4826	1.4882	1.4938	1.4994	1.5051	1.5108	1.5166	1.5224	1.5282	1.5340	10	19	29	38	48

(i) 1.5009 (ii) 1.501 (iii) 1.5013 (iv) 1.5017 (v) 1.5016

4. Find angle θ such that $\sin\theta = 0.6747$

From Table of Natural Sines

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
42	0.6691	0.6704	0.6717	0.6730	0.6743	0.6756	0.6769	0.6782	0.6794	0.6807	2	4	6	9	11

(i) $42° 26'$ (ii) $42° 36'$ (iii) $42° 16'$ (iv) $42° 31'$ (v) $42° 21'$

5. Find angle θ such that $\cos\theta = 0.7365$

From Table of Natural Cosines

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
42	0.7431	0.7420	0.7408	0.7396	0.7385	0.7373	0.7361	0.7349	0.7337	0.7325	2	4	6	8	10

(i) $42° 24'$ (ii) $42° 39'$ (iii) $42° 44'$ (iv) $42° 29'$ (v) $42° 34'$

6. Find angle θ such that $\tan\theta = 0.525$

From Table of Natural Tangents

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
27	0.5095	0.5117	0.5139	0.5161	0.5184	0.5206	0.5228	0.5250	0.5272	0.5295	4	7	11	15	18

(i) $27° 52'$ (ii) $27° 37'$ (iii) $27° 47'$ (iv) $27° 42'$ (v) $27° 32'$

7. Find the value of $\sin 24° 25'$

From Table of Natural Sines

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
24	0.4067	0.4083	0.4099	0.4115	0.4131	0.4147	0.4163	0.4179	0.4195	0.4210	3	5	8	11	13

(i) 0.4137 (ii) 0.413 (iii) 0.4138 (iv) 0.4131 (v) 0.4134

8. Find the value of $\cos 48° 27'$

From Table of Natural Cosines

x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
48	0.6691	0.6678	0.6665	0.6652	0.6639	0.6626	0.6613	0.6600	0.6587	0.6574	2	4	7	9	11

(i) 0.6636 (ii) 0.6629 (iii) 0.6632 (iv) 0.6628 (v) 0.6635

9. Find the value of $\tan 10° 25'$

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) 0.1834 (ii) 0.1841 (iii) 0.1835 (iv) 0.1838 (v) 0.1842

10. Find angle θ such that $\sin\theta = 0.4334$

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) 25° 46' (ii) 25° 41' (iii) 25° 36' (iv) 25° 31' (v) 25° 51'

11. Find angle θ such that $\cos\theta = 0.4126$

From Table of Natural Cosines															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
65	0.4226	0.4210	0.4195	0.4179	0.4163	0.4147	0.4131	0.4115	0.4099	0.4083	3	5	8	11	13

(i) 65° 28' (ii) 65° 48' (iii) 65° 38' (iv) 65° 33' (v) 65° 43'

12. Find angle θ such that $\tan\theta = 0.8521$

From Table of Natural Tangents															
x°	0'	6'	12'	18'	24'	30'	36'	42'	48'	54'	1'	2'	3'	4'	5'
40	0.8391	0.8421	0.8451	0.8481	0.8511	0.8541	0.8571	0.8601	0.8632	0.8662	5	10	15	20	25

(i) 40° 16' (ii) 40° 26' (iii) 40° 31' (iv) 40° 21' (v) 40° 36'

Assignment Key

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