

SAMPLE PAPER FOR CLASS- X

Trigonometry Part-1

1. Question. 1 : In ΔABC , right-angled at B, $AB = 24$ cm, $BC = 7$ cm, Find the remaining side?
2. Question 2: If $\sin A = 3/4$, Calculate $\cos A$ and $\tan A$.
3. Question 4: If $3 \cot A = 4$, check whether $(1 - \tan^2 A)/(1 + \tan^2 A) = \cos^2 A - \sin^2 A$
4. $(1 + \tan^2 A/1 + \cot^2 A) = (1 - \tan A/1 - \cot A)^2 = \tan^2$ Prove it.
5. $\sin A = 4/5$, find $\cos A$ and $\tan A$.
6. i) $4 \cot 3\theta - 4 = 0$ ii) $\cos^2 \theta - 1/4 = 1/2$
7. **Evaluate the following:**
 - (i) $\operatorname{cosec}^2 45^\circ + \tan^2 45^\circ - 3\sin^2 90^\circ$
 - (ii) $\cos 60^\circ \cos 30^\circ - \sin 60^\circ \sin 30^\circ$
 - (iii) $\tan 60^\circ - \tan 30^\circ + \tan 60^\circ \tan 30^\circ$
8.
 - (i) $\operatorname{cosec}^2 45^\circ + \tan^2 45^\circ - 3\sin^2 90^\circ$
 - (ii) $\cos 60^\circ \cos 30^\circ - \sin 60^\circ \sin 30^\circ$