

## Worksheet: Trigonometric Functions

Uttar Pradesh State Board · Class 11 · Mathematics · 3 questions · 12 marks

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 12

**Q1.** Evaluate:  $\sin 30^\circ \cos 60^\circ + \cos 30^\circ \sin 60^\circ$ . [2 marks]

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**Q2.** Prove:  $(1 + \tan^2) / (1 + \cot^2) = \tan^2$ , [4 marks]

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**Q3.** If  $\tan \theta = 3/4$  and  $\theta$  is in the first quadrant, find  $\sin 2\theta$ ,  $\cos 2\theta$ , and  $\tan 2\theta$ , [6 marks]

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