



## Class 10 Mathematics | Introduction To Trigonometry

MCQ WORKSHEET • 15 questions • Choose one correct option • Suggested time: 25 minutes

**1. If  $\theta$  is acute and  $\sin \theta = 3/5$ ,  $\cos \theta$  is:**

A.  $4/5$  B.  $5/3$  C.  $3/4$  D.  $5/4$

**2. The value of  $\tan 45^\circ$  is:**

A.  $1/\sqrt{3}$  B.  $\sqrt{3}$  C. 0 D. 1

**3. The value of  $\sin 30^\circ + \cos 60^\circ$  is:**

A. 0 B.  $1/2$  C.  $\sqrt{3}$  D. 1

**4. For acute  $\theta$ ,  $\sec \theta$  equals:**

A.  $1/\cos \theta$  B.  $1/\sin \theta$  C.  $\cos \theta / \sin \theta$  D.  $\sin \theta / \cos \theta$

**5. If  $\tan \theta = 5/12$  for acute  $\theta$ ,  $\sin \theta$  is:**

A.  $12/13$  B.  $5/12$  C.  $5/13$  D.  $13/5$

**6. The identity  $1 + \tan^2 \theta$  equals:**

A.  $\sin^2 \theta$  B.  $\cos^2 \theta$  C.  $\sec^2 \theta$  D.  $\operatorname{cosec}^2 \theta$

**7. The value of  $2 \sin 30^\circ \cos 60^\circ$  is:**

A.  $1/4$  B.  $1/2$  C.  $\sqrt{3}/2$  D. 1

**8. For acute  $\theta$ ,  $\sin(90^\circ - \theta)$  equals:**

A.  $\tan \theta$  B.  $\sin \theta$  C.  $\sec \theta$  D.  $\cos \theta$

**9. If  $\cos \theta = 12/13$  and  $\theta$  is acute,  $\tan \theta$  is:**

A.  $5/13$  B.  $5/12$  C.  $12/5$  D.  $13/12$

**10. The value of  $\sec^2 60^\circ - \tan^2 60^\circ$  is:**

A. 3 B. 4 C. 1 D. 7

**11. If  $\theta$  is acute and  $\sin \theta = \cos \theta$ ,  $\theta$  is:**

A.  $60^\circ$  B.  $90^\circ$  C.  $45^\circ$  D.  $30^\circ$

**12. The value of  $\sin^2 30^\circ + \cos^2 30^\circ$  is:**

A. 2 B. 1 C.  $1/2$  D.  $3/4$

**13. For acute  $\theta$ ,  $(1 - \cos^2 \theta) / \sin^2 \theta$  is:**

A. 1 B.  $\sin \theta$  C.  $\cos \theta$  D. 0

**14. If  $\cot \theta = 7/24$  and  $\theta$  is acute,  $\operatorname{cosec} \theta$  is:**

A.  $7/25$  B.  $25/7$  C.  $25/24$  D.  $24/25$

**15. Which value is impossible for  $\sin \theta$  of an acute angle?**

A.  $5/4$  B.  $3/5$  C.  $\sqrt{3}/2$  D.  $1/2$

**ANSWER KEY — check after completing all 15 questions**

**1.A 2.D 3.D 4.A 5.C 6.C 7.B 8.D 9.B 10.C 11.C 12.B 13.A 14.C 15.A**

Original exam-style practice • Reference notes: [www.physics.guru/cbse-practice-papers/](http://www.physics.guru/cbse-practice-papers/) • Not an official paper

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