

MULTIPLE CHOICE QUESTIONS FOR PRACTICE

SUBJECT: MATHEMATICS

UNIT: TRIGONOMETRY

CLASS:10

STUDENT NAME:

SCHOOL NAME:

Four alternative /choices are given for each incomplete statement or a question. Click the correct answer.

1. $\sin\theta =$ -----

- a) $\frac{adj}{hyp}$ b) $\frac{opp}{hyp}$ c) $\frac{opp}{adj}$ d) $\frac{adj}{opp}$

2. If $13\cos\theta=5$ then $\tan\theta=$ -----

- a) $\frac{5}{13}$ b) $\frac{13}{5}$ c) $\frac{5}{12}$ d) $\frac{12}{5}$

3. If $\operatorname{cosec}\theta=\frac{13}{5}$ then $\frac{5}{13}=$ -----

- a) $\sin\theta$ b) $\cos\theta$ c) $\tan\theta$ d) $\sec\theta$

4. If $\tan\theta=\frac{3}{4}$ then $\sin\theta+\cos\theta=$ -----

- a) $\frac{9}{5}$ b) $\frac{5}{9}$ c) $\frac{7}{5}$ d) $\frac{5}{9}$

5. Reciprocal of $\sec\theta$ is -----

- a) $\sin\theta$ b) $\cos\theta$ c) $\tan\theta$ d) $\operatorname{cosec}\theta$

6. $\sin 45^\circ =$ -----

- a) $\frac{1}{2}$ b) $\frac{1}{\sqrt{2}}$ c) $\sqrt{2}$ d) 2

7. $\sin 30^\circ$ is equal to-----

- a) $\cos 60^\circ$ b) $\cos 30^\circ$ c) $\sin 60^\circ$ d) $\tan 30^\circ$

8. $\sin 30^\circ + \cos 60^\circ =$ -----

- a) $\frac{1}{2}$ b) 1 c) $\frac{1}{4}$ d) 2

9. The value of $\frac{\tan 65^\circ}{\cot 25^\circ}$ is-----

- a) $\sqrt{2}$ b) 0 c) 1 d) $\frac{1}{\sqrt{2}}$

10. The Value of $\cos 48^\circ - \sin 42^\circ$ is-----

- a) $\frac{1}{2}$ b) 0 c) 1 d) $\frac{1}{\sqrt{2}}$

11. The value of $\cos^2 17^\circ - \sin^2 73^\circ$ is-----

- a) 1 b) $\frac{1}{3}$ c) 0 d) -1

12. $\frac{\cos 37^\circ}{\sin 53^\circ}$ is-----

- a) 0 b) 1 c) 2 d) 3

13. value of $\frac{\operatorname{cosec} 32^\circ}{\sec 58^\circ}$ is-----

- a) 1 b) 0 c) $\frac{1}{2}$ d) 2

14. $\sin(90 - 20)^\circ$ is -----

- a) $\sin 20^\circ$ b) $\cos 20^\circ$ c) $\cos 70^\circ$ d) $\sin 90^\circ$

15. complementary angle of $\sec \theta$ is-----

- a) $\cos \theta$ b) $\sin \theta$ c) $\operatorname{cosec} \theta$ d) $\sec \theta$

16. In triangle ABC angle B is right angle and angle c is θ then $\sin(90 - \theta) = - -$

- a) $\frac{AB}{AC}$ b) $\frac{BC}{AC}$ c) $\frac{BC}{AB}$ d) $\frac{AB}{BC}$

17. In the following which one of the following is not true-----

- a) $\sin^2 \theta + \cos^2 \theta = 1$ b) $\sin \theta = \sqrt{1 - \cos^2 \theta}$ c) $\sin \theta = \sqrt{1 + \cos^2 \theta}$ d) $\cos \theta = \sqrt{1 - \sin^2 \theta}$

18. $(\sin \theta + \cos \theta)^2 =$ -----

- a) $1 + 2\sin \theta \cos \theta$ b) $1 - 2\sin \theta \cos \theta$ c) $1 + \sin \theta \cos \theta$ d) $1 - \sin \theta \cos \theta$

19. $\sin^2 60^\circ = \text{-----}$

a) $\frac{3}{4}$

b) $\frac{4}{3}$

c) $\frac{\sqrt{3}}{2}$

d) $\frac{2}{\sqrt{3}}$

20. which one of the following is equal to $\operatorname{cosec} 60^\circ$ -----

a) $\sin 60^\circ$

b) $\sec 60^\circ$

c) $\sec 30^\circ$

d) $\cos 30^\circ$

21. $\sin^2 45^\circ \times \cos^2 45^\circ = \text{-----}$

a) $\frac{1}{4}$

b) $\frac{1}{2}$

c) $\frac{1}{\sqrt{2}}$

d) 4

22. If $\sec 4A = \operatorname{cosec}(A - 20^\circ)$ and $4A$ is acute then the value of A is -----

a) 32°

b) 70°

c) 22°

d) 42°

23. $\sin 20^\circ \sec 70^\circ + \cos 25^\circ \operatorname{cosec} 65^\circ = \text{-----}$

a) 0

b) 1

c) 4

d) 2

24. In the following which one of the following is both complementary and reciprocal to each other ? -----

a) $\tan \theta$ and $\cot \theta$

b) $\sin \theta$ and $\cos \theta$

c) $\sin \theta$ and $\operatorname{cosec} \theta$

d) $\sec \theta$ and $\operatorname{cosec} \theta$

25) $9 \sec^2 A^\circ - 9 \tan^2 A^\circ = \text{---}$

a) 9

b) 0

c) 1

d) -9