

Trigonometry Questions Overview

Trigonometry Questions have a good weightage in the Ssc Chsl Exam and the type of question asked in Ssc Chsl exam is similar to the question mentioned below. It has been solved and explained by KD Live Experts under the guidance of Neetu Mam and they have tried to elaborate the concept used in Trigonometry Questions.

Question On Trigonometry

Find the value of $\sin 75^\circ + \cos 15^\circ + 4\cos^2 60^\circ - \tan^2 45^\circ$

Difficulty : Moderate

Average Time : 29 Seconds

Trigonometry Questions Options

1. $(3 + 1)/2 + 1/2$
2. $(3 + 1)/2$
3. $(3 + 1)/2 - 1/2$
4. $(3 + 1)/22$

Trigonometry Questions Solution

Correct answer is **Option 2** i.e. $(3 + 1)/2$

$$\sin 75^\circ + \cos 15^\circ + 4\cos^2 60^\circ - \tan^2 45^\circ$$

We know that,

$$\cos(90^\circ - A) = \sin A$$

$$\cos 15^\circ = \cos(90^\circ - 75^\circ) = \sin 75^\circ$$

Now,

$$\sin 75^\circ = \sin(45^\circ + 30^\circ) = \sin 45^\circ \cos 30^\circ + \cos 45^\circ \sin 30^\circ$$

$$\sin 75^\circ = (1/2) \times (3/2) + (1/2) \times (1/2)$$

$$\sin 75^\circ = (1/2) \times (3/2 + 1/2) = (3 + 1)/22$$

Now,

$$\sin 75^\circ + \cos 15^\circ + 4\cos^2 60^\circ - \tan^2 45^\circ$$

$$= \sin 75^\circ + \sin 75^\circ + 4 \times (1/2)^2 - 1^2$$

$$= 2\sin 75^\circ + 1 - 1$$

$$= 2 \sin 75^\circ$$

$$= 2 \times (3 + 1)/22$$

$$= (3 + 1)/2$$

Trigonometry Questions Tips and Tricks



1. Try to solve Trigonometry Questions without taking any help from the solutions.
2. Trigonometry Questions require proper usage of concept so firstly read the question thoroughly and then use the right concept.
3. In case you're not able to solve the question in less than 30 seconds in the exam then you should skip the question and move to the next question.

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Further Guidance on Trigonometry Questions

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KD live has an expertise in providing apt explanations for the Trigonometry Questions since 2008. More than 10 lakh aspirants have cleared competitive exams under the guidance of Neetu Mam. Study.kdcampus.live is providing free information on various topics and for the Ssc Chsl Exam you can refer the following link [Click Here](#) however if you want to practice more questions then please refer the following link [Click Here](#).

About Neetu Mam

Neetu Mam is primarily passionate for the English language and teaching from the last 20 years however for the Trigonometry Questions. She has guided her team to provide the best explanation for the question.