

GIRLS' HIGH SCHOOL & COLLEGE, PRAYAGRAJ

ASSIGNMENT-03

SESSION: 2020-21

CLASS: IX (A, B, C, D, E)

SUBJECT: MATHEMATICS

INSTRUCTIONS: The parents to ensure that their ward watches the video instructions for this assignment by clicking on the given link:

https://youtu.be/tdNE_ptA464

<https://youtu.be/ivOhAoOJhso>

She should revise the lesson given in the book and then work on the assignment. The completed assignment is to be downloaded and filed/pasted in the subject file/copy and kept ready for submission.

The day, date and procedure of submission shall be notified later.

Reference book: Concise Mathematics Class IX- by R. K. Bansal.

CHAPTER: TRIGONOMETRY

TOPIC1: Trigonometrical ratios

TOPIC2: Trigonometrical ratios of standard angles

TOPIC3: Solution of right triangles

TOPIC4: Complementary angles

Solve the following questions:

Q1. If $\cos A = \frac{5}{13}$, evaluate: $\frac{\sin A - \cot A}{2 \tan A}$

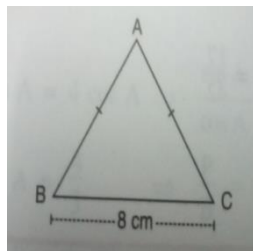
Q2. In the figure given below, ABC is an isosceles triangle with $BC = 8\text{cm}$ and $AB = AC = 5\text{cm}$. Find:

(i) $\sin B$

(ii) $\tan C$

(iii) $\sin^2 B + \cos^2 B$

(iv) $\tan C - \cot B$



Q3. If $\operatorname{cosec} A + \sin A = 5\frac{1}{5}$; find the value of $\operatorname{cosec}^2 A + \sin^2 A$.

Q4. Find the value of: $\cos^2 60^\circ + \sec^2 30^\circ + \tan^2 45^\circ$

Q5. If $A = B = 45^\circ$, show that:

$$\sin(A - B) = \sin A \cos B - \cos A \sin B$$

Q6. Solve for A: $(\tan A - 1) (\operatorname{cosec} 3A - 1) = 0$

Q7. Solve for x:

(i) $\sin (x + 10^\circ) = 1/2$

(ii) $3 \tan^2 (2x - 20^\circ) = 1$

(iii) $\cos^2 30^\circ + \sin^2 2x = 1$

NOTE: Refer to your book and do the following questions in your mathematics notebook/register.

Page no.	Exercise no.	Question no.
303	Ex. 24	7,15
310	Ex. 25	1(iv),3(i)

END