

# Activity Worksheet

Challenging brain

Sub : Mathematics

Grade: X

Date: .....

Name: .....

ID No.....

Write the correct answer for each of the following:

iv. If  $\Delta ABC$  is right-angled at C, then  $\cot(A + B)$  is

(a) 0

(b) 1

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

(d) not defined

Sol.

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\_\_\_\_\_

v. If  $\sin \theta - \cos \theta = 0$ , then the value of  $(\sin^2 \theta + \cos^2 \theta)$  is

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

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

(c)  $\frac{3}{4}$

(d) 1

Sol.

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vi. Given that  $\sin \alpha = \frac{1}{\sqrt{2}}$  and  $\cos \beta = 1$  then the value of  $\tan(\alpha + \beta)$  is

(a)  $\frac{1}{\sqrt{2}}$

(b) 1

(c) 0

(d)  $\sqrt{3}$

Sol.

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vii. If  $5 \tan \theta = 12$ , then  $\left(\frac{5 \sin \theta - \cos \theta}{5 \sin \theta + \cos \theta}\right)$  is equal to

(a)  $\frac{12}{13}$

(b)  $\frac{5}{13}$

(c)  $\frac{11}{13}$

(d)  $\frac{13}{11}$

Sol.

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