

# Activity Worksheet

Challenging brain

Sub : Mathematics

Grade: X

Date: .....

Name: .....

ID No.....

## Multiple Choice Questions

1. Given that  $\sin \theta = \frac{a}{b}$  then  $\cos \theta$  is equal to

(a)  $\frac{b}{\sqrt{b^2 - a^2}}$

(b)  $\frac{b}{a}$

(c)  $\frac{\sqrt{b^2 - a^2}}{b}$

(d)  $\frac{a}{\sqrt{b^2 - a^2}}$

Sol. \_\_\_\_\_

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2. If  $(\alpha + \beta) = 0$  then  $\sin(\alpha - \beta)$  can be reduced to

(a)  $\cos \beta$

(b)  $\cos 2\beta$

(c)  $\sin \alpha$

(d)  $\sin 2\alpha$

Sol. \_\_\_\_\_

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

(a) 1

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

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

(d) 0

Sol. \_\_\_\_\_

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4. The value of the expression  $\frac{\sin^2 63^\circ + \sin^2 27^\circ}{\cos^2 63^\circ + \cos^2 27^\circ} - \sin^2 90^\circ$  is

(a) 1

(b) 0

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

(d) 2

Sol. \_\_\_\_\_

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