

# Activity Worksheet

Challenging brain

Sub : Mathematics

Grade: IX

Date: .....

Name: .....

ID No.....

## Multiple Choice Questions

Write the correct answer for each of the following:

1. If  $\frac{x}{y} + \frac{y}{x} = -1$  ( $xy \neq 0$ ) the value of  $x^3 - y^3$  is

(a) 1

(b) -1

(c) 0

(d)  $\sqrt{7}$

Sol.

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2. If  $49x^2 - b = \left(7x + \frac{1}{2}\right)\left(7x - \frac{1}{2}\right)$ , then the value of b is

(a) 0

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

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

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

Sol.

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3. Which of the following is a factor of  $(x + y)^3 - (x^3 + y^3)$ ?

(a)  $x^2 + y^2 + 2xy$

(b)  $x^2 + y^2 - xy$

(c)  $xy^2$

(d)  $3xy$

Sol.

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4. If  $a + b + c = 0$ , then  $a^3 + b^3 + c^3$  is equal to

(a) 0

(b) abc

(c)  $3abc$

(d)  $2abc$

Sol.

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