



INDIAN SCHOOL AL WADI AL KABIR

Class : IX, Mathematics

**BRIDGE COURSE WORKSHEET-3**

TOPIC: ALGEBRA

Roll No.:

Date:

Name:

Section:

|             |                                                                                               |
|-------------|-----------------------------------------------------------------------------------------------|
| <b>Q.1.</b> | Find: $(-36y^3) \div 9y^2$                                                                    |
| <b>Q.2.</b> | Find the product: $\frac{3}{5}ax^3 \times \frac{1}{6}bx^2 \times \frac{2}{5}aby$              |
| <b>Q.3.</b> | Find the value of $x$ , if $4x = 52^2 - 48^2$                                                 |
| <b>Q.4.</b> | Subtract $8x^3 + 4x^2 - 2x$ from $11x^4 + 5x^3 - x^2 - 6x$ .                                  |
| <b>Q.5.</b> | Simplify $(3y^2 + 9)(3y^2 - 5)$ using suitable identity.                                      |
| <b>Q.6.</b> | Using identities, evaluate:<br>a) $103 \times 97$<br><br>b) $102 \times 103$<br><br>c) $98^2$ |

|              |                                                                                                                                                                       |
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| <b>Q.7.</b>  | Simplify using identities $(2x + 9y)(2x - 9y)$                                                                                                                        |
| <b>Q.8.</b>  | Simplify using identities $(y - 7)(y + 5)$                                                                                                                            |
| <b>Q.9.</b>  | Simplify using identities $(m + 12)(m + 15)$                                                                                                                          |
| <b>Q.10.</b> | Simplify using identities $\left(\frac{x}{2} - \frac{3y}{4}\right)\left(\frac{x}{2} - \frac{3y}{4}\right)$                                                            |
| <b>Q.11.</b> | Factorise $21x^2y^2 + 27x^3y^2$                                                                                                                                       |
| <b>Q.12.</b> | Factorize using suitable method: $7x^2 + 14x + xz + 2z$                                                                                                               |
| <b>Q.13.</b> | Factorise $x^2 - 16x + 64$                                                                                                                                            |
| <b>Q.15.</b> | Identify the error and rewrite the correct statement:<br>i) $4(x - 5) = 4x - 5$<br>ii) $2x + 3y = 5xy$<br>iii) $x + 2x + 3x = 5x$<br>iv) $(2x)^2 + 5x = 4x + 5x = 9x$ |
| <b>Q.16.</b> | Factorize $p^2 + 2p - 8$                                                                                                                                              |
| <b>Q.17.</b> | Find the solution of the equation $2y - 3 = 5y - \frac{18}{5}$ .                                                                                                      |