

The City School
North Nazimabad Boys Campus
Subject: Mathematics
Topic: Indices and Algebra



Name _____ Class9/Sec: _____ Date: _____

Q1: Evaluate each of the following:

- a) $\left(\frac{5}{3}\right)^{-2}$
- b) $5a^3 \times a^{-1}$
- c) $0.5^2 \times 8^2$

Q2: Simplify each of the following:

- a) $4x^2y^3 \times 2xy \div 8x$
- b) $2x^2 \times 3x^3 \times (5x)^0$
- c) $\frac{(2a^4)^3 \times 16b}{4ab \times (2ab)^3}$

Q3: Express the following in Ordinary Notation and Standard Form respectively:

- a) $3.5 \times 10^4 + 4.5 \times 10^5$
- b) $(8.64 \times 10^{10}) \div (3.6 \times 10^6)$
- c) 23.0006
- d) 3769000
- e) 4.67×10^3

Q4: Expand each of the followings:

- a) $3(2x + 7y)$
- b) $-6(-3x + 3y)$
- c) $(4x - 3)(2x - 5)$
- d) $(a+1)(a^2 - a^1 + 1)$