St. Andrews Scots Sr. Sec. School

9th Avenue, I.P. Extension, Patparganj, Delhi – 110092
Session: 2025-2026 - Worksheet

Class: VII | Subject:Maths | Topic: Power and Exponents | Worksheet:12

Q1. Identify the greater number in each of the following:

(i) 2^5 or 5^2

(ii) 3^4 or 4^3

Q2. Evaluate:

$(i)\ \dfrac{5^4 \times 7^5 \times 2^9}{8 \times 49 \times 5^2}$ $(ii)\ \dfrac{15^4 \times 18^3}{3^3 \times 5^2 \times 12^2}$

Q3. Express the following in standard form:

(i) 8,19,00,000

(ii) 5,94,00,00,00,000

(iii) 6892.25

Q4. Find the value of:

(i) $(-1)^{1000}$

(ii) $(1)^{250}$

Q5. Expíess 500 as a píoduct of poweís of its píime factoís.

Q6. Simplify the following and write in exponential form:

(i) $(5^2)^3$

(ii) $(2^3)^3$

(iii) $(a^b)^c$

Q7. Solve:

If $\dfrac{p}{q} = \left(\dfrac{3}{2}\right)^2 + \left(\dfrac{9}{4}\right)^0$, find the value of $\left(\dfrac{p}{q}\right)^3$.

Q8. Simplify and write in exponential form:

$(i)\ \left(\dfrac{3^5}{3^2}\right) \times 3^{10}$ $(ii)\ 8^2 \div 2^3$

Q9. Find the value of k in each of the following:

$(i)\ \left(\dfrac{2}{3}\right)^3 \times \left(\dfrac{2}{3}\right)^6 = \left(\dfrac{4}{9}\right)^{2k-3}$

$(ii)\ \left(-\dfrac{4}{5}\right)^2 \times \left(\dfrac{4}{5}\right)^5 = \left(\dfrac{4}{5}\right)^{6k+1}$

Q10. Find the value of

(a) $(8^0 - 2^0) \div (8^0 + 2^0)$

(b) $(2^0 + 3^0 + 4^0) - (4^0 - 3^0 - 2^0)$