ASSIGNMENT

1. The value of x for the expression $(\frac{7}{9})^{-4} \times (\frac{7}{9})^{3x} = (\frac{9}{7})^{-5}$ is

a) 3   b) -2

c) -3   d) 1

2. The abscissa of a point is its distance from

a) origin   b) y-axis

c) x-axis   d) none of these

3. **Assertion: An exponent refers to the number of times a number is multiplied by itself**

Reason: 0.00003 is equal to 3×10^{-5}.

a) both assertion and reason are correct and reason is correct explanation for assertion

b) both assertion and reason are correct but reason is correct explanation for assertion

c) assertion is correct but reason is false

d) both assertion and reason are false

4. Solve for x: $3^{3x + 3} = 9^{x + 4}$.

5. Find the value of m, if $(-5)^{m + 1} \times (-5)^6 = (-1)^9 (5)^9$.

6. The size of the red blood cells is 0.000007m and size of the plant cell is 0.00001275m. What is the approximate ratio of their size?

7. CASE STUDY

A teacher shows four articles of different lengths in a classroom of standard VIII. The difficulty is that the lengths are in exponential form. The lengths of the articles are as follows:

a) $3 \times 16^{3/4}$

b) $2 \times 27^{2/3}$

c) $4^0 \times 16^{3/4}$

d) $2 \times 9^{3/2} \times 3^{-1}$

Q.1 What is the length of the first article?

Q.2 What is the sum of lengths of all articles?

Q.3 What is the product of the lengths of first and third articles?

Q.4 What is the ratio of the length of first and fourth articles?