



ST. LAWRENCE HIGH SCHOOL



TOPIC – Logarithm

Subject : Mathematics

Class-9

Second Term

F. M. 15

WORKSHEET NO. - 6

Solutions

Date: 23.11.2020

Q.1) Choose the correct option:

(1x15=15)

- i) The value of $4^{\log_2 x}$ is
d) x^2
- ii) If $(\log_5 k) (\log_3 5) (\log_k x) = k$, then the value of x is
c) 3^k
- iii) If $1 + \log_4 x = 2 \log_4 y$, then
c) $y^2 = 4x$
- iv) If $\log_x 4 + \log_x 8 + \log_x 32 = 5$, then the value of x is
b) 4
- v) The value of $\log_6(216\sqrt{6})$ is
c) $7/2$
- vi) The value of $\log_8 128$ is
a) $7/3$
- vii) The value of $\log_{20} 3$ lies between
b) $(1/3, 1/2)$
- viii) The value of $2^{\log_3 5} - 5^{\log_3 2}$
a) 0
- ix) The value of $\log_9 27 - \log_{27} 9$ is
c) $5/6$
- x) If $\log_x a \cdot \log_5 x = 3$, then the value of a is
c) 125
- xi) The value of $\log_b a \cdot \log_c b \cdot \log_a c$ is
c) 1
- xii) If $a = \log_{24} 12$, $b = \log_{36} 24$, $c = \log_{48} 36$, then value of $(1 + abc)$ is
b) $2bc$
- xiii) If $x = \log_3 5$ and $y = \log_{17} 25$, then which of the following is correct?
a) $x < y$
- xiv) The number of solution of the equation $\log_4(x - 1) = \log_2(x - 3)$ is
c) 2
- xv) If $\log_2 x \times \log_2 \left(\frac{x}{16}\right) + 4 = 0$, then the value of x is
a) 4

-Chaitali Roy