

Assignment 1

Class – 9th

Chapter – 1 (Number Systems)

1. Express the following numbers in the form of $\frac{p}{q}$:
 - (a) -25.6875
 - (b) 0.621621621..
 - (c) 15.712121212..
2. Write one rational & one fractional number between 0.515115111.... and 0.535335333....
3. Write one example each of two irrational numbers whose:
 - (a) Sum is a rational number
 - (b) Product is an irrational number
 - (c) Difference is an irrational number
 - (d) Quotient is a rational number
4. Simplify : $[\{ (625)^{-1/2} \}^{-1/4}]^2$
5. (a) Find the value of x if $2^{x-7} \times 5^{x-4} = 1250$
(b) Find the value of x and y if:
 $3^{x-1} = 9$ & $4^{y+2} = 64$
6. Find the value of a & b if $\frac{5 + 2\sqrt{3}}{7 + 4\sqrt{3}} = a + b\sqrt{3}$
7. If $x = 3 + \sqrt{8}$, then find the value of $x^2 + \frac{1}{x^2}$.