

**MCQ WORKSHEET-V**  
**CLASS IX : CHAPTER - 1**  
**NUMBER SYSTEM**

1. Which of the following is true?  
 (a) Every whole number is a natural number (b) Every integer is a rational number  
 (c) Every rational number is an integer (d) Every integer is a whole number
2. For Positive real numbers a and b, which is not true?  
 (a)  $\sqrt{ab} = \sqrt{a}\sqrt{b}$  (b)  $(a + \sqrt{b})(a - \sqrt{b}) = a^2 - b$   
 (c)  $\sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}}$  (d)  $(\sqrt{a} + \sqrt{b})(\sqrt{a} - \sqrt{b}) = a + b$
3. Out of the following, the irrational number is  
 (a)  $1.\bar{5}$  (b)  $2.4\bar{77}$  (c)  $1.2\bar{77}$  (d)  $\pi$
4. To rationalize the denominator of  $\frac{1}{\sqrt{a+b}}$ , we multiply this by  
 (a)  $\frac{1}{\sqrt{a+b}}$  (b)  $\frac{1}{\sqrt{a-b}}$  (c)  $\frac{\sqrt{a+b}}{\sqrt{a+b}}$  (d)  $\frac{\sqrt{a-b}}{\sqrt{a-b}}$
5. The number of rational numbers between  $\sqrt{3}$  and  $\sqrt{5}$  is  
 (a) One (b) 3 (c) none (d) infinitely many
6. If we add two irrational numbers, the resulting number  
 (a) is always an irrational number (b) is always a rational number  
 (c) may be a rational or an irrational number (d) always an integer
7. The rationalizing factor of  $7 - 2\sqrt{3}$  is  
 (a)  $7 - 2\sqrt{3}$  (b)  $7 + 2\sqrt{3}$  (c)  $5 + 2\sqrt{3}$  (d)  $4 + 2\sqrt{3}$
8. If  $\frac{1}{7} = 0.\overline{142857}$ , then  $\frac{4}{7}$  equals  
 (a)  $0.\overline{428571}$  (b)  $0.571428$  (c)  $0.\overline{857142}$  (d)  $0.\overline{285718}$
9. The value of n for which  $\sqrt{n}$  be a rational number is  
 (a) 2 (b) 4 (c) 3 (d) 5
10.  $\frac{3\sqrt{12}}{6\sqrt{27}}$  equals  
 (a)  $\frac{1}{2}$  (b)  $\sqrt{2}$  (c)  $\sqrt{3}$  (d)  $\frac{1}{3}$
11.  $(3 + \sqrt{3})(3 - \sqrt{2})$  equals  
 (a)  $9 - 5\sqrt{2} - \sqrt{6}$  (b)  $9 - \sqrt{6}$  (c)  $3 + \sqrt{2}$  (d)  $9 - 3\sqrt{2} + 3\sqrt{3} - \sqrt{6}$

12. The arrangement of  $\sqrt{2}, \sqrt{5}, \sqrt{3}$  in ascending order is  
(a)  $\sqrt{2}, \sqrt{3}, \sqrt{5}$  (b)  $\sqrt{2}, \sqrt{5}, \sqrt{3}$  (c)  $\sqrt{5}, \sqrt{3}, \sqrt{2}$  (d)  $\sqrt{3}, \sqrt{2}, \sqrt{5}$
13. If  $m$  and  $n$  are two natural numbers and  $m^n = 32$ , then  $n^{mn}$  is  
(a)  $5^2$  (b)  $5^3$  (c)  $5^{10}$  (d)  $5^{12}$
14. If  $\sqrt{10} = 3.162$ , then the value of  $\frac{1}{\sqrt{10}}$  is  
(a) 0.3162 (b) 3.162 (c) 31.62 (d) 316.2
15. If  $\left(\frac{3}{4}\right)^6 \times \left(\frac{16}{9}\right)^5 = \left(\frac{4}{3}\right)^{x+2}$ , then the value of  $x$  is  
(a) 2 (b) 4 (c) -2 (d) 6

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