INDIAN SCHOOL DARSAIT
DEPARTMENT OF MATHEMATICS

Subject : Mathematics Topic : Number System Date of Worksheet : 25-4-2019
Worksheet no : 1
Resource Person: Sunitha Rajeev

Name of the Student :_____ Class & Division : IX ... Roll Number : __

	Section A (Basic Skill)	**Marks**
1.	(- 56) + 28 – (8)	
2.	251 – (-17) + (- 68)	
3.	[35 × (-35) + 25]	
4.	117 ÷ [2 + (-1)]	
5.	(-72) ÷ [(-36) ÷(-2)]	
	Section B	
1.	Express 0.452452452….. in the form of $\frac{p}{q}$, where p and q are integers and $q \neq 0$.	2
2.	Simplify $8\sqrt{242} - 5\sqrt{50} + 3\sqrt{98}$.	2
3.	Represent $\sqrt{5.7}$ on the number line.	3
4.	Evaluate $\frac{\sqrt{5}+\sqrt{2}}{\sqrt{5}-\sqrt{2}}$, given that $\sqrt{10} = 3.162$	3
5.	Simplify $\frac{4+\sqrt{5}}{4-\sqrt{5}} + \frac{4-\sqrt{5}}{4+\sqrt{5}}$	3
6.	If $x = 4 - \sqrt{15}$, find the value of $(x + \frac{1}{x})^2$	4
7.	Show that $\frac{[x^{(a+b)}]^2.[x^{(b+c)}]^2.[x^{(c+a)}]^2}{(x^a x^b x^c)^4} = 1$	4
8.	Simplify : $\left(\frac{2^{-1}\times 3^2}{2^2 \times 3^{-4}}\right)^{\frac{7}{2}} \times \left(\frac{2^{-2}\times 3^3}{2^3 \times 3^{-5}}\right)^{\frac{-5}{2}}$	4
9.	Find the value of a and b ,if $\frac{7+3\sqrt{5}}{3+\sqrt{5}} + \frac{7-3\sqrt{5}}{3-\sqrt{5}} = a + \sqrt{5}\, b$.	4
10.	If $x = 3 - 2\sqrt{2}$, find the value of $\sqrt{x} + \frac{1}{\sqrt{x}}$	4
	Section C (HOTS)	
1.	Evaluate $\sqrt{5 + 2\sqrt{6}} + \sqrt{8 - 2\sqrt{15}}$	3
2.	Write $\sqrt[3]{4}$, $\sqrt[4]{6}$, $\sqrt{3}$ in ascending order.	3