



INDIAN SCHOOL DARSAIT
DEPARTMENT OF MATHEMATICS



Subject : Mathematics Topic : Number System Date of Worksheet : 26-4-2017

Worksheet no: 1

Resource Person: Mrs. Anu Likson

Name of the Student : _____

Class & Division : IX Roll Number : ____

	Section A (Basic Skill)	Marks
	<u>Simplify</u>	
1.	$28 - (-8)$	1
2.	$-251 - (-17)$	1
3.	$[25 \times (-25) + 14]$	1
4.	$117 \div [2 + (-1)]$	1
5.	$(-72) \div [(-36) \div (-2)]$	1
	<u>Section B</u> Answer the following questions:	
1.	Represent $0.237237237\dots$ in the form of 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 $\sqrt{4.5}$ on the number line.	3
4.	Evaluate $\sqrt{5 + 2\sqrt{6}} + \sqrt{8 - 2\sqrt{15}}$	3
5.	Evaluate $\frac{\sqrt{5} + \sqrt{2}}{\sqrt{5} - \sqrt{2}}$, given that $\sqrt{10} = 3.162$	3
6.	Simplify $\frac{4 + \sqrt{5}}{4 - \sqrt{5}} + \frac{4 - \sqrt{5}}{4 + \sqrt{5}}$	3
7.	Write $\sqrt[3]{4}$, $\sqrt[4]{6}$, $\sqrt{3}$ in ascending order.	3
8.	Show that $\frac{[x^{(u+b)}]^2 \cdot [x^{(b+c)}]^2 \cdot [x^{(c+u)}]^2}{(x^a x^b x^c)^4} = 1$	4



INDIAN SCHOOL DARSAIT
DEPARTMENT OF MATHEMATICS



9.	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
10.	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
11.	If $x = 4 - \sqrt{15}$, find the value of $\left(x + \frac{1}{x}\right)^2$	4
12.	If $x = 3-2\sqrt{2}$, find the value of $\sqrt{x} + \frac{1}{\sqrt{x}}$	4