## INDIAN SCHOOL SOHAR <br> FORMATIVE ASSESSMENT- 2 <br> MATHEMATICS

STD IX
Marks : 20
02-06-14
Time : 40min

## General Instructions:

All questions are compulsory
This question paper consists of $\mathbf{9}$ questions divided into four sections A, B,C and D
Section A comprises of $\mathbf{3}$ questions of $\mathbf{1}$ mark each
Section $\mathbf{B}$ comprises of $\mathbf{2}$ questions of $\mathbf{2}$ mark each
Section C comprises of $\mathbf{3}$ questions of $\mathbf{3}$ mark each
Section D comprises of $\mathbf{1}$ question of $\mathbf{4}$ mark

## SECTION A

1. Find the value of $k$ for which $(x-1)$ is a factor of the polynomial $4 x^{3}+3 x^{2}-4 x+k$
2. Expand using suitable identity: $(x-y+2 z)^{2}$
3. State any two Euclids postulates.

## SECTION B

4. In this fig. if $x+y=w+z$, then prove that $A O B$ is a line.
5. If a point Q lies between two points P and R such that
 $P Q=R Q$, then prove that $P Q=\frac{1}{2} P R$. Explain by drawing the fig.

## SECTION C

6. If $2 x-3=a$, then prove that $8 x^{3}-18 a x=a^{3}+27$
7. In the fig. if $A C=B D$, then prove that $A B=C D$

A B C D
8. In the fig. POQ is a line. Ray OR is perpendicular to line PQ. OS is another ray lying between the rays OP and OR. Prove that $\angle \mathrm{ROS}=\frac{1}{2}(\angle \mathrm{QOS}-\angle \mathrm{POS})$


## SECTION D

9. Factorise : $2 x^{3}-3 x^{2}-17 x+30$
