Practice Material for Periodic Test-I

	MATHEMATICS WORKSHEET
	CLASS IX
1.	Express **0.3535…..in** $\frac{p}{q}$ form
2.	Find two irrational numbers between **0.5 and 0.55**
3.	Locate $\sqrt{3}$ on the number line.
4.	Find **a** and **b** if $\frac{\sqrt{3}-1}{\sqrt{3}+1}$ **= a+b**$\sqrt{3}$
5.	If **x= 2+**$\sqrt{3}$, find the value of $x^3+\frac{1}{x^3}$
6.	Simplify $(0.001)^{\frac{1}{3}}$
7.	Evaluate using identities: **103×107**
8.	Find the remainder x^4**-3**x^2**+2x+1** is divided by **x-1**
9.	Show that **x-3** is a factor of the polynomial $x^3-3x^2+4x-12$
10.	Using factor theorem, $x^3+6x^2+11x+6$
11	If **f(x) =** $2x^3-13x^2+17x+12$, find **f(-3)**
12.	Find the zero of the polynomial **2x+5**
13.	If **x= 2** is a zero of the polynomial $2x^2$**-3x+7a**, find **a**.
14.	If both **x+1** and **x-1** are factors of ax^3+x^2**-2x+b**
15.	Factorise: $64a^3+125b^3+240a^2b+300ab^2$
16.	Find the value of $27x^3+8y^3$ if **3x+2y=14 and xy=8**
17.	An exterior angle of a triangle is **110°** and one of the interior opposite angles is **30°** . Find the other two angles of the triangle
18.	If the supplement of an angle is three times its complement, find the angle.
19.	If two interior angles on the same side of the transversal intersecting two parallel lines are in the ratio **2:3 ,** then find the measure of larger angle
20.	In ΔABC the internal bisectors of ∠B and ∠C meet at P and the external bisectors of ∠B and ∠C meet at Q.Prove that **∠BPC+∠BQC=180**
21.	Prove that $(9)^{\frac{3}{2}}$**- 3×**5^0**-** $(\frac{1}{81})^{\frac{-1}{2}}$**= 15**
22.	In a Δ**ABC , ∠ABC = ∠ACB** and the bisectors of ∠ABC and ∠ACB intersect at O such that ∠BOC =120°. Show that **∠A=∠B=∠C=60°.**
23.	The side BC of a ΔABC is produced on both sides. Show that the sum of the exterior angles so formed is greater than ∠A by two right angles.
24.	The opposite sides of a quadrilateral are parallel. If one angle of the quadrilateral is 60°, find the other angles.

25.	Simplify:	$\frac{(25)^{\frac{3}{2}}\times(243)^{\frac{3}{5}}}{(16)^{\frac{5}{4}}\times(8)^{\frac{4}{3}}}$
26.	All theorems	