BCM SCHOOL, CHANDIGARH ROAD
A SENIOR SECONDARY SCHOOL OF BCM FOUNDATION
AFFILIATED TO CBSE, NEW DELHI
CLASS – IX
SUBJECT MATHS
ASSIGNMENT

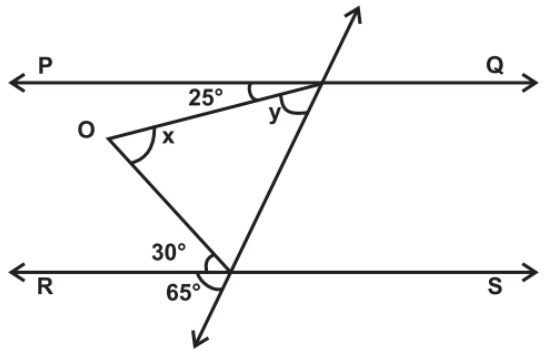
1. **Solve the following.**

$$\frac{(32)^{0.2} + (81)^{0.25}}{(256)^{0.5} - (121)^{0.5}}$$

2. **Find the value of x if**

$$5^{x-3} . 3^{2x-8} = 225,$$

3. **Degree of the polynomial f(x) = $4x^4 + 0x^3 + 0x^5 + 5x + 7$ is**
4. **Find the ratio of the side and diagonal of square.**
5. **If one angle of a parallelogram is 24° less than twice the smallest angle , then the measure of the largest angle of the parallelogram is**
6. **Factorise : $4x^2 + 9y^2 + 16z^2 + 12xy – 24yz – 16xz$**
7. **If the diagonals of a parallelogram are equal, then show that it is a rectangle.**
8. **ABCD is a rhombus such that ∠ACB = 40°, then find ∠ADB.**
9. **If x – 2 is a factor of $5x^2 – kx – 18$, then find the value of k.**
10. **Find the point where x + y =5 meets x axis.**
11. **If (2m-1, 3m+3) is solution of 3x – 5y = 2 then find the value of m.**
12. **If PQ is parallel to RS, find x and y.**



13. **Find the increase percent in area if each side of triangle is doubled.**
14. **If p, q, r are all non zero then prove that**

$$\frac{p^2}{qr} + \frac{q^2}{rp} + \frac{r^2}{pq} = 3$$

15. **Find the value of a and b.**

$$\frac{7 + 3\sqrt{5}}{2 + \sqrt{5}} - \frac{7 - 3\sqrt{5}}{2 - \sqrt{5}} = a + b\sqrt{5}$$