HIGHER ORDER THINKING SKILL QUESTIONS

CLASS VIII **MATHEMATICS**

1. If $x+\frac{1}{x}=2$, find the vaue of $\frac{x}{1+x+x^2}$

2. If $x+\frac{1}{x}=2$, find the value of $x-\frac{1}{x}$

3. If $x-\frac{1}{x}=0$, find the value of $x^8+\frac{1}{x^8}$

4. If a+b = 5, and a-b=1, find the value of 8ab(a^2+b^2)

5. Find the value of 1.79 x1.79 +2.42 x 1.79 + 1.21 x 1.21

6. Express *x(x-3)(x-6)(x-9) + 81* as a perfect square

7. Express *(x-1)(x-3)(x-4)(x-6) +34* as the sum of two squares

8. Factorise:

(i) $x^2y^2(a+b)^2 - a^2b^2(x+y)^2$

(ii) $x^8 - 16y^8$

(iii) $p^4 - 3p^2q^2 + 9q^4$

(iv) $4a^2b^2 - (a^2 + b^2 - c^2)^2$

9. Draw the graph of the equation *x+5=0*

10. Draw a graph of y-7=0

11. Draw the graph of the equation *y=3x*. From the graph, find the value of y when *x=4*

12. Draw the graph of the equation *4x+5y = 20* and find the area of the triangle formed by the graph with the co-ordinate axes.

13. Two men and 6 boys can do a piece of work in 5 days while 8 men and 3 boys can do it in 3 days. In what time will 1 man and 3 boys do the work?

14. If 8 labourers can earn Rs.9000 in 15 days, how many labourers can earn Rs. 6300 in 7 days?

15. Three typists working 8 hours a day can type a document in 10 days. If only 2 typists are working, how many hours a day should they work to finish the job in 12 days?

16. A, B, and C working separately can do a piece of work in 2, 3, and 4 days respectively. If they all work together and arn Rs.3900 for the whole work, how should they divide the money?