**THE OXFORD SENIOR SECONDARY SCHOOL**

WORKSHEET OF DIFFERENTIABILITY

1. Find the derivatives of the following function w.r.tx  
   (i) (ii) log(3x-1) (iii) (iv)
2. Differentiate  
   (i) (ii) x sin2xlogx (iii)   
   (iv)
3. Find the derivative of the function w.r.t x
4. If y= , prove that (1-
5. If y= , prove that (
6. If y= , then show that
7. prove that.
8. – log
9. , prove that (x+1) + xy=1
10. wrt x
11. Find when,

y = +  , x>1

12)Differentiate the following w.r.t x

1. (ii)(iii)

(iv) (v) (vi))

(vii) (viii) (ix)

(x)

13) Find when

(i) y =

(ii) , 0<x<

(iii)Y=

(iv)Y= +

(v) Y= +

(vi)Y= +