**Differentiate the following:**

1. *f*(*x*) = (8*x*3 + 7)4
2. *y* = (*x*2 + 8*x* + 9)3
3. *h*(*t*) = (*t*8 – 9*t*3 + 3*t* + 2)10
4. *y* = (*u*5 – 3*u*4 + 7)
5. *g*(*x*) = √*x*2 + 9*x* + 1
6. *y*= 3√*ex* + 1
7. *f*(*x*) = sin(*x*2)
8. *g*(*x*) = sin2(*x*)
9. *y* = ln(3*t* + 5)>
10. *h*(*x*) = cos(3*x*)
11. *y* = *e*(*x*2)
12. *y* = ln( *x* + 1)
13. *s*(*u*) = cos5(*u*)
14. *y* = (ln(*x*))5
15. *f*(*x*) = *ex* + *e*2*x* + *e*3*x*
16. *y* = tan(*ex*)
17. 
18. 
19. *y* = *xe*2*x*
20. *f*(*x*) = sec(10*x*2 + *ex*)

**Differentiate the following:**

1. *f*(*x*) = cos3(8*x*)
2. *y* = (*e*9*x*2+2*x*+1) 4
3. *g*(*t*) = ln(tan(*e*t + 1))
4. *y* = sin(sin(sin(*x*)))
5. *k*(*u*) = sec(ln(8*u*3))
6. *h*(*x*) = ln(cos(*x* + *e*3*x*))