**Calculus and integer**

**1- Complete:**

1. ***If = 0 and then the function f has ………… at x .***
2. ***If f(x) = + has a critical point at x = 2 then b = ……….***
3. ***The function f(x)= tan x in continues for x………..***
4. ***is not differentiable at x = …………..***
5. ***If =1- siu2 x, f(0) = then f ()= ………….***
6. ***If f(x) = is cont. on then R then x……***
7. ***If the function f is define on the interval [a , b] and<0***

 ***for x [a,b] the the function is …….. on [a,b]***

1. ***If a function f defined on [a,b] 0 where c [a,b] ,***

 ***for x c then f has ……… at x = c***

1. ***If 2x sin x cos x then f (x) = ………***
2. ***A function f has a limit as x tends to a point a if …………………***
3. ***If f(x)= sec x then ……..***
4. ***If f(x)= x 0 is cont at x= 0 then f (0)= ……***
5. ***F(x) = secx is continues for x ……***
6. ***If siny = then = …… at x = = and y [0, ]***
7. ***If f(x) =a x3 + 3 x2 and 12 , then a = …….***
8. ***The tangent to the circle x2+y2= 1 its slope at x = equal …………***
9. ***If = (sin x – cosx )2 , y = when x =0 then y =……..***
10. ***An equilateral ∆ is side length x where rate of increase of side is 2cm/min the rate of increase of area is……………***

***Choose the correct answer***

1. ***If = y then y = ………..***

***[ , sin x , tanx , c]***

1. ***The curve y = 4-x2 has local max at x= ……***

 ***[zero , 4 , 2 , 1]***

1. ***= ……..+ c***

***[ sin 2x , cos 2x , - sin x2 , - cos x2 ]***

1. ***dx - ……+c***

***[ sin 2x , cos 2x , - sin x2 , - cos2x , cos2x ]***

1. ***If a function f is differentiable and 0 and 0 then f has ………. at***

***[L.max , L.min , inf-piont , abs min]***

1. ***If the function y = f(x) is diff and has a local maximum, at c then***

 ***………. [ 0 , c , y , -1***

 ***and …………0 [ , , = , ]***

1. ***60, 60 , 30 cm are the sides of isoscels ∆ its legs decreases. by the rate 5cm/min then the ∆ vanishes after ….. min***

 ***[ 3 , 6 , 9, 12, 8]***

1. ***If =1- 2 sin2 then y = …….***

***[ x – sin x , 1- sin x , 1+cosx , 1- sinx + c]***

1. ***If y = cos2x sin x + sin2 x cos x then y "=……***

***[ cos2 x , - 2 cos2x – 2 sin2x , sin2x]***

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