



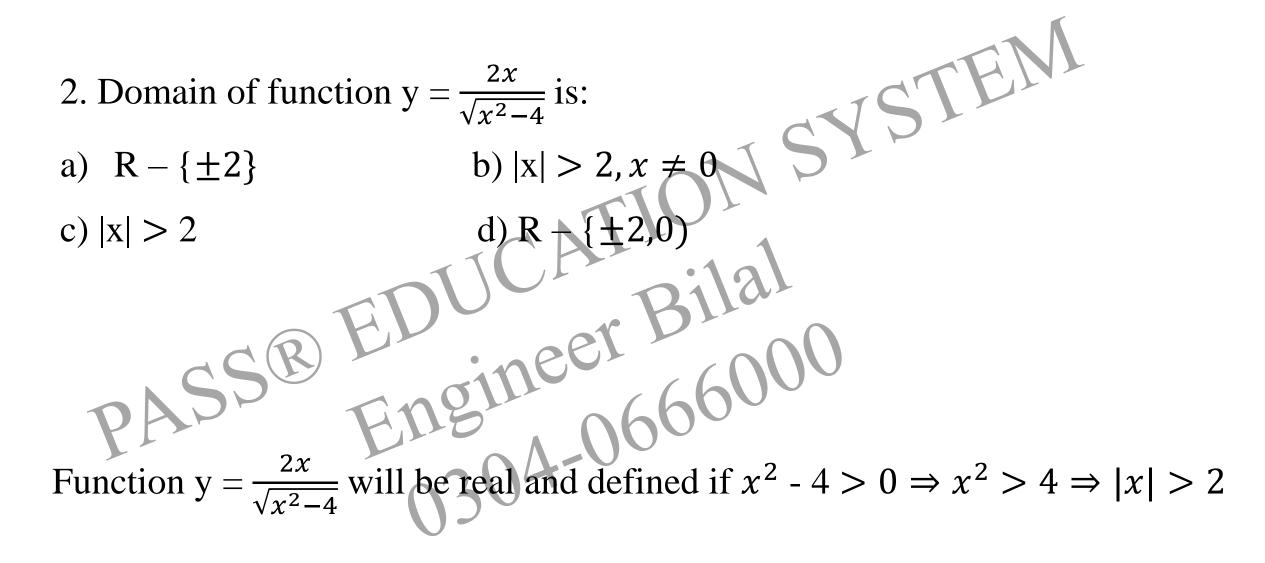
1. If (2,5) lie in the graph of an odd function then which one must lie must on the graph of function:

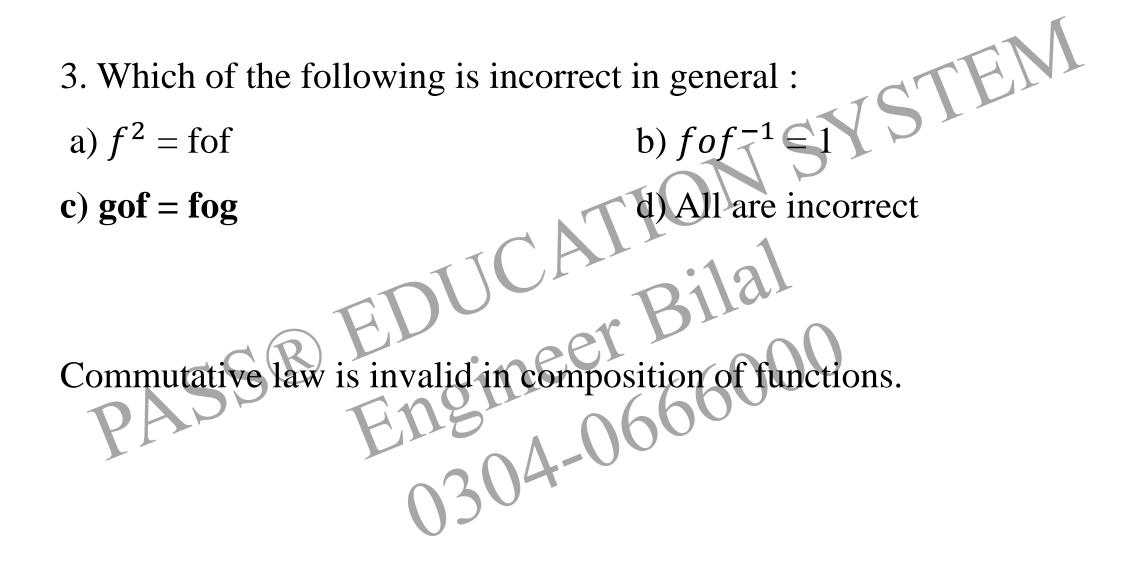
An odd function satisfy the condition f(x, y) = f(-x, -y)

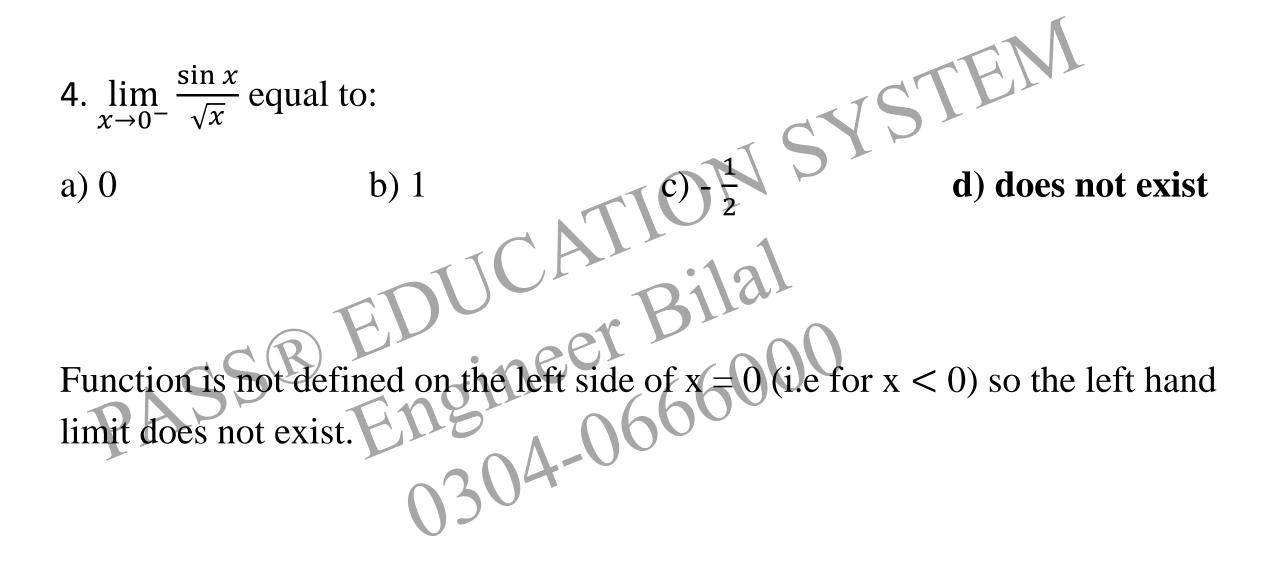
a) (-2, -5)

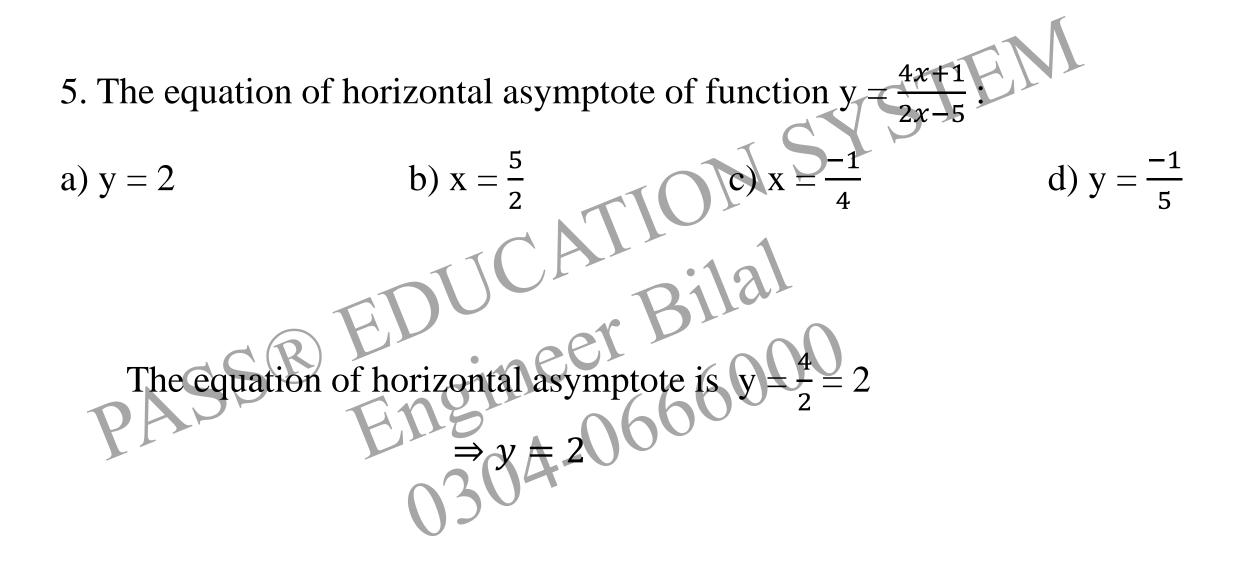
c) (2, -5)

So it (2, 5) is on the graph of f then (-2, -5) is also on the graph of f.





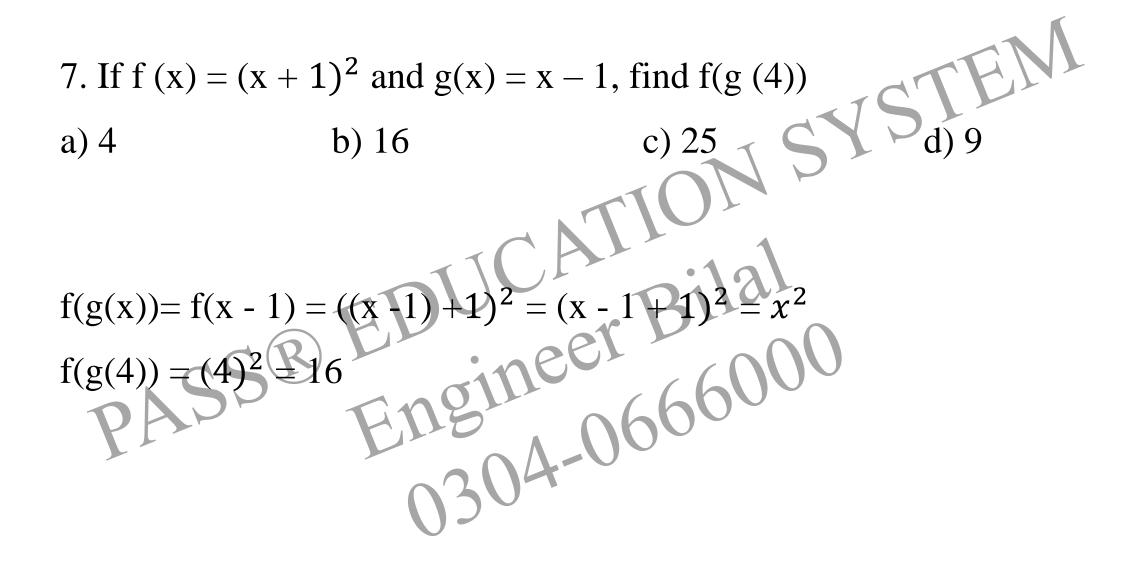


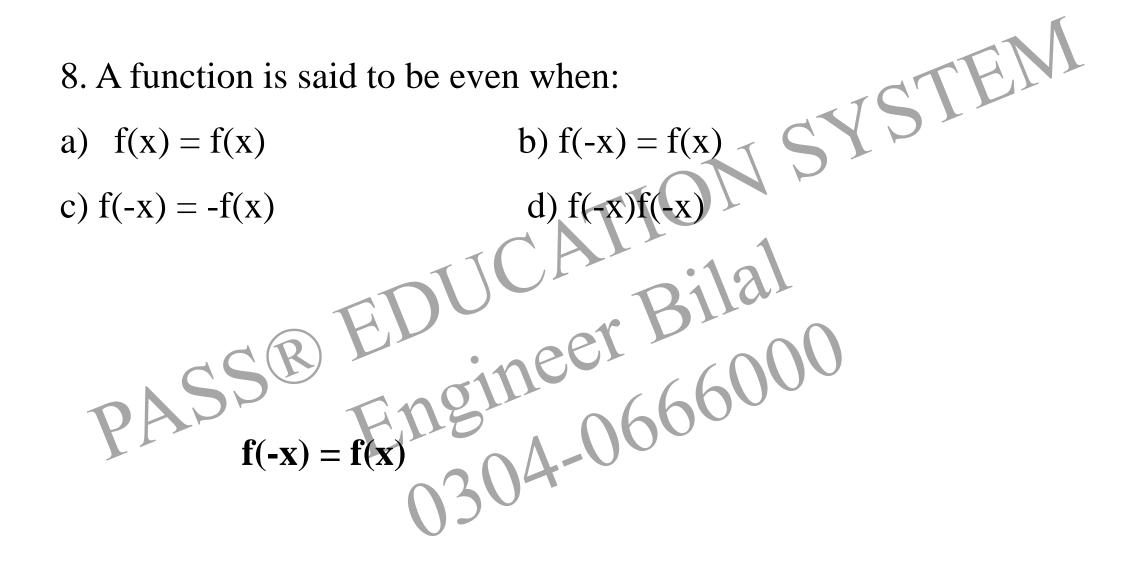


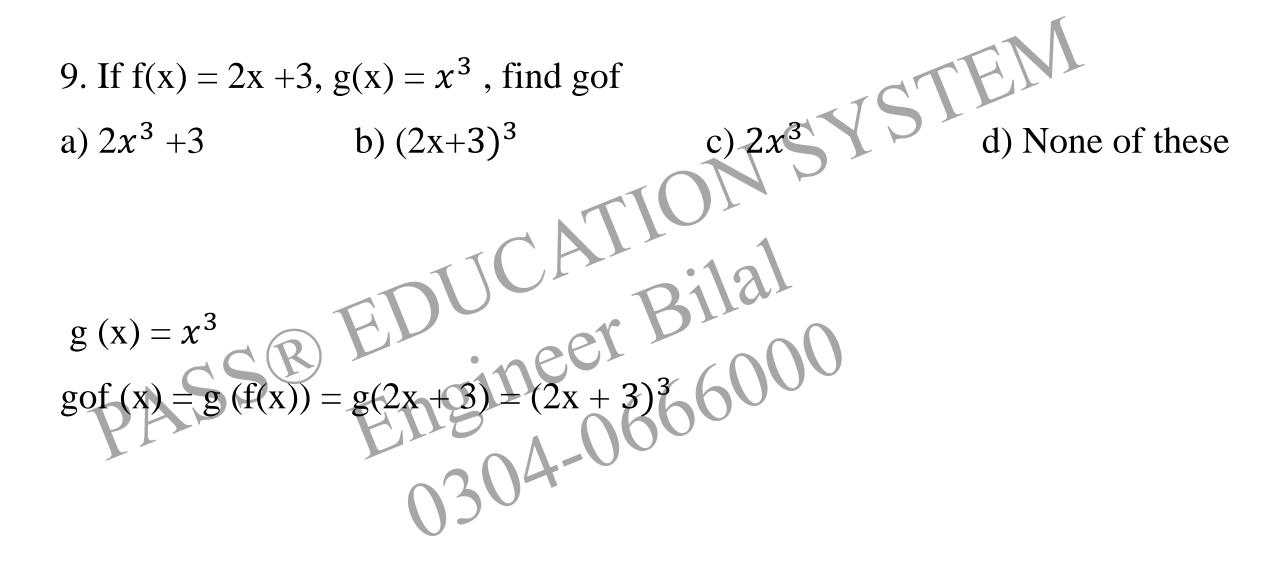
6. The set of point of discontinuity of the function $f(x) = \log_a x$ is:

a) ϕ b) $(-\infty, 0]$ c) $(-\infty, 0]$ d) $(0,\infty)$

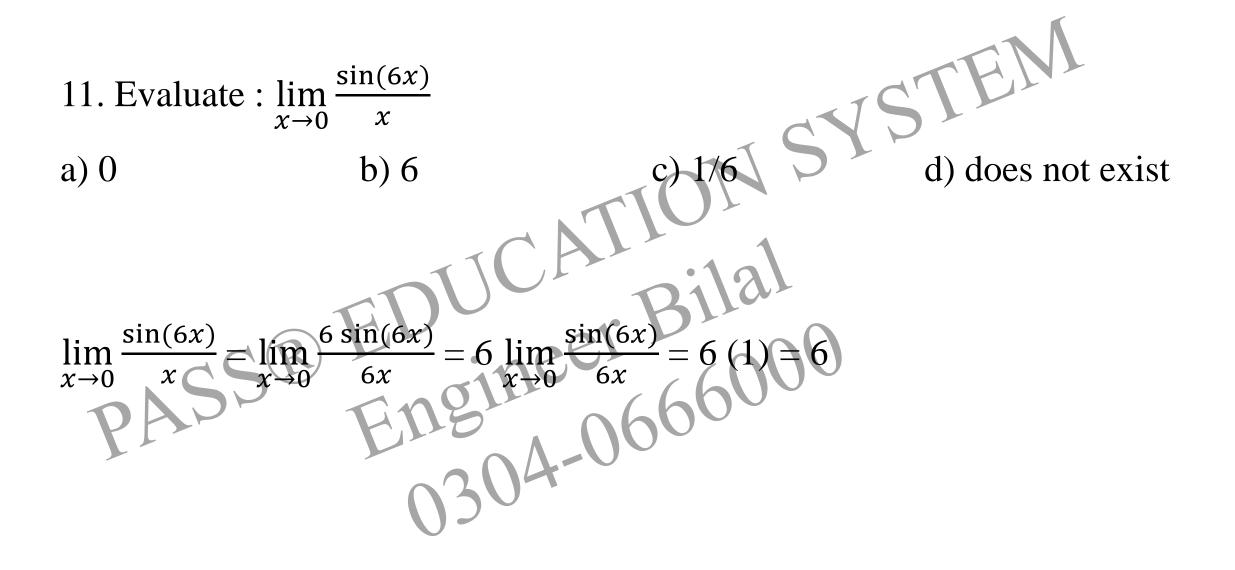
Set of point for which function is not defined is also a set of point of discontinuity . $\log_a x$ is not defined for non-positive numbers so required set is the interval $(-\infty, 0]$







10. If f(x) = 2, find the value of f(x+2)b) 8 a) 4 d) () The function is defined as f(x)This is a constant function which means for all value of x the value of f(x)will always be 2. i.e, even if the value of x is changed by adding 2, the value of f (x) will still be 2 The graph of f(x) will be a horizontal line passing through the point (0,2). Hence c is the right answer.



12. If $f(x) = x^2 + 1$, g(x) = 5x + 1, find f(g(x))

a) $25x^2 + 10x + 2$

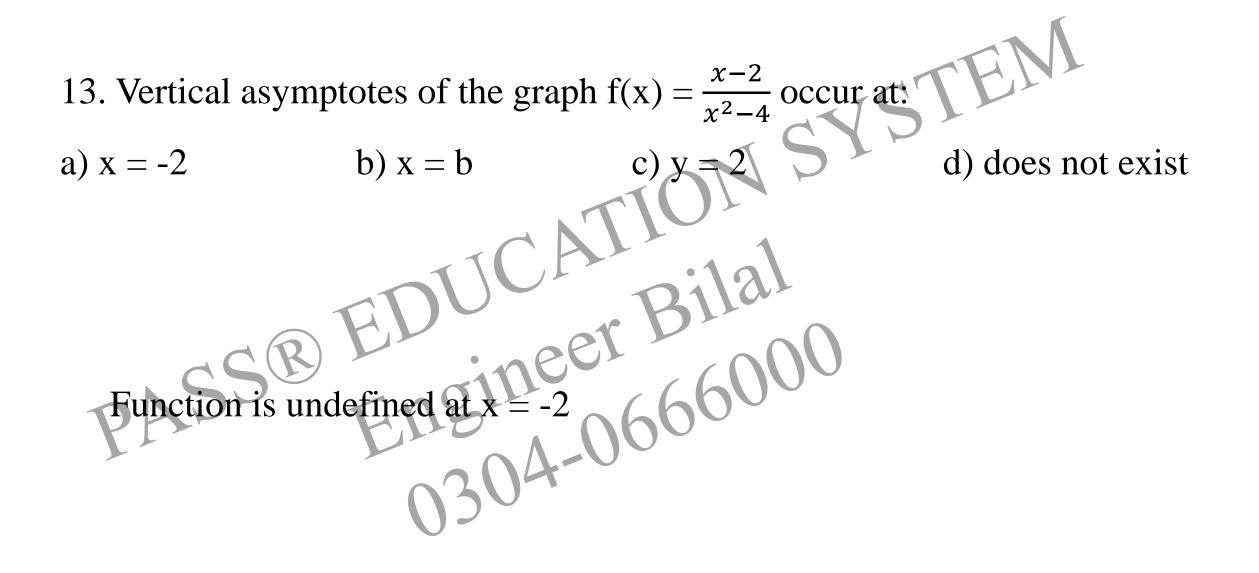
c) $5x^3 + x^2 + 5x + 1$ d) none of these

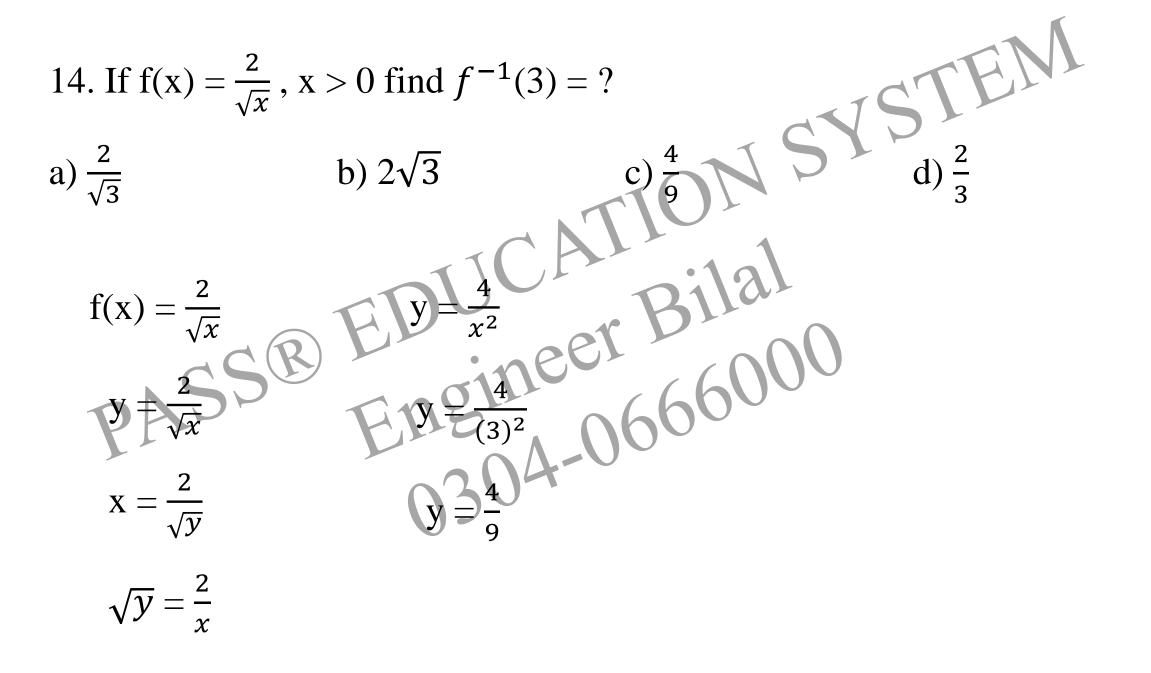
f(g(x) denotes the composition of both functions . To find f(g)(x) we have to replace every occurrence of x in f (x) with the value g(x). So,

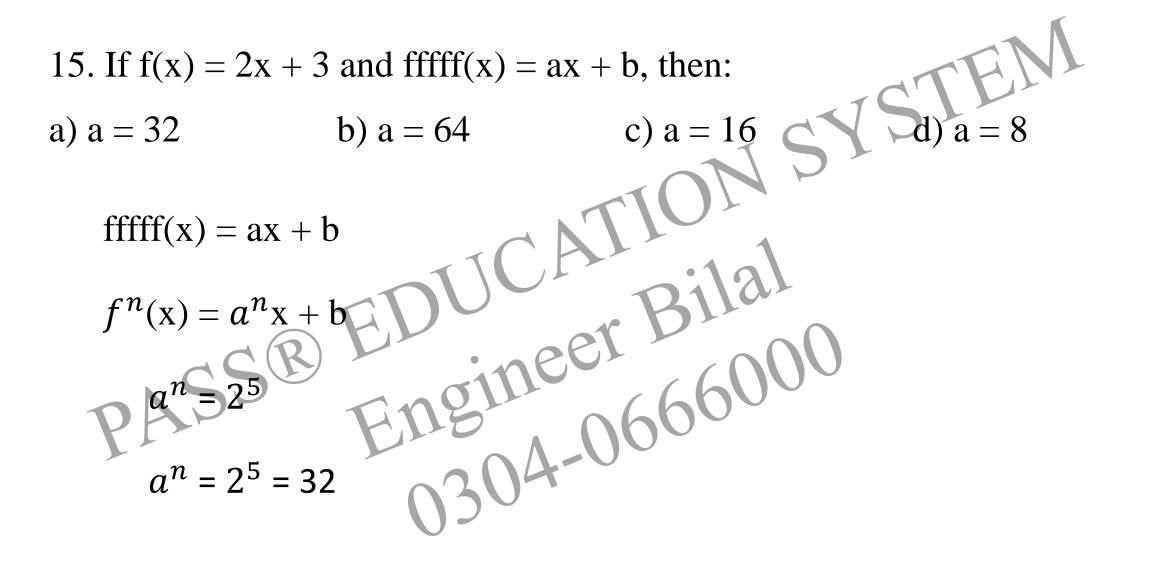
b) $5x^2 + 6$

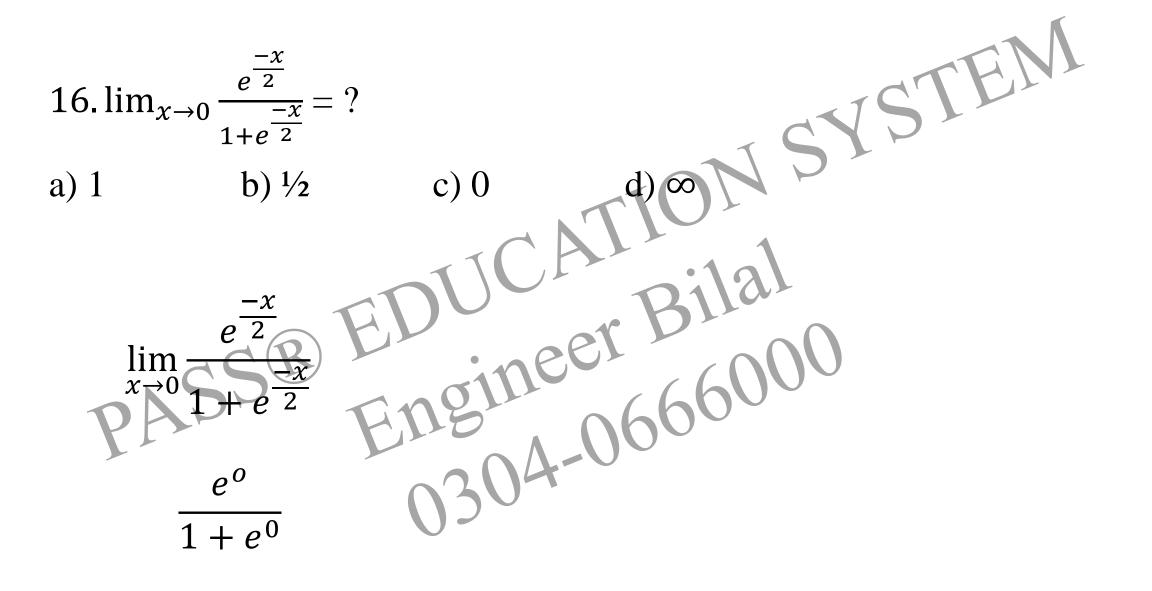
f(g(x)) = f(5x + 1)

 $= (5x + 1)^{2} + 1 = 25x^{2} + 10x + 1 + 1 = 25x^{2} + 10x + 2$

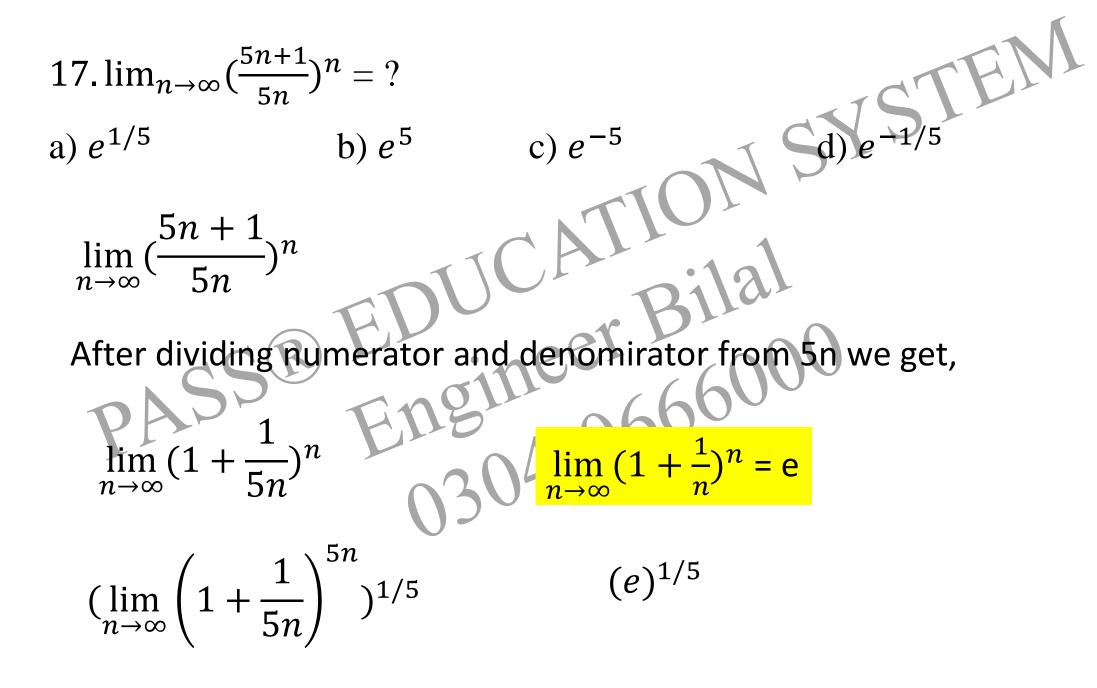


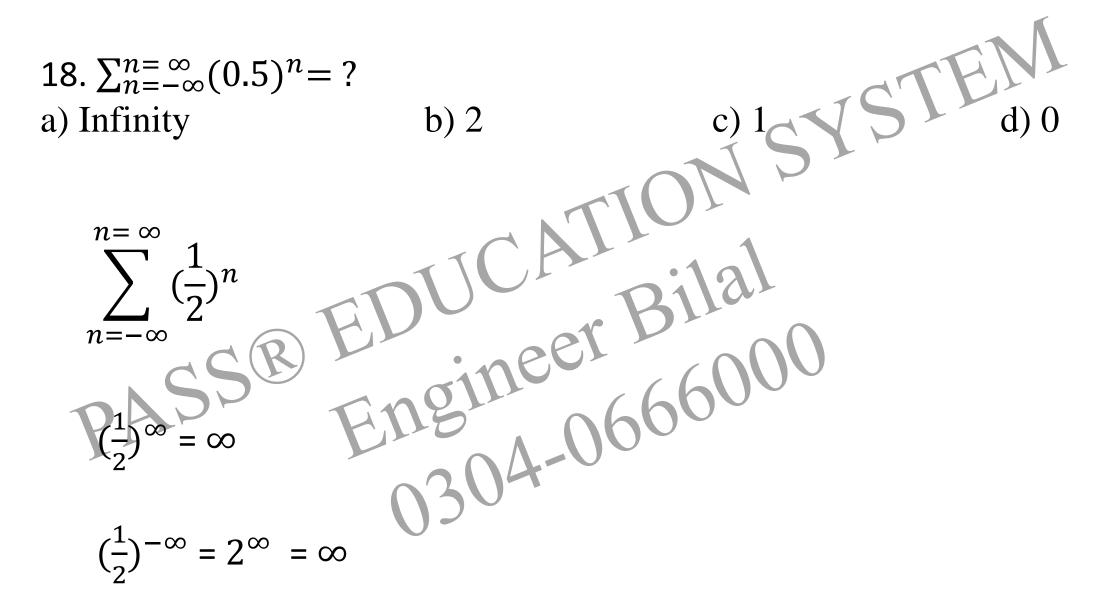




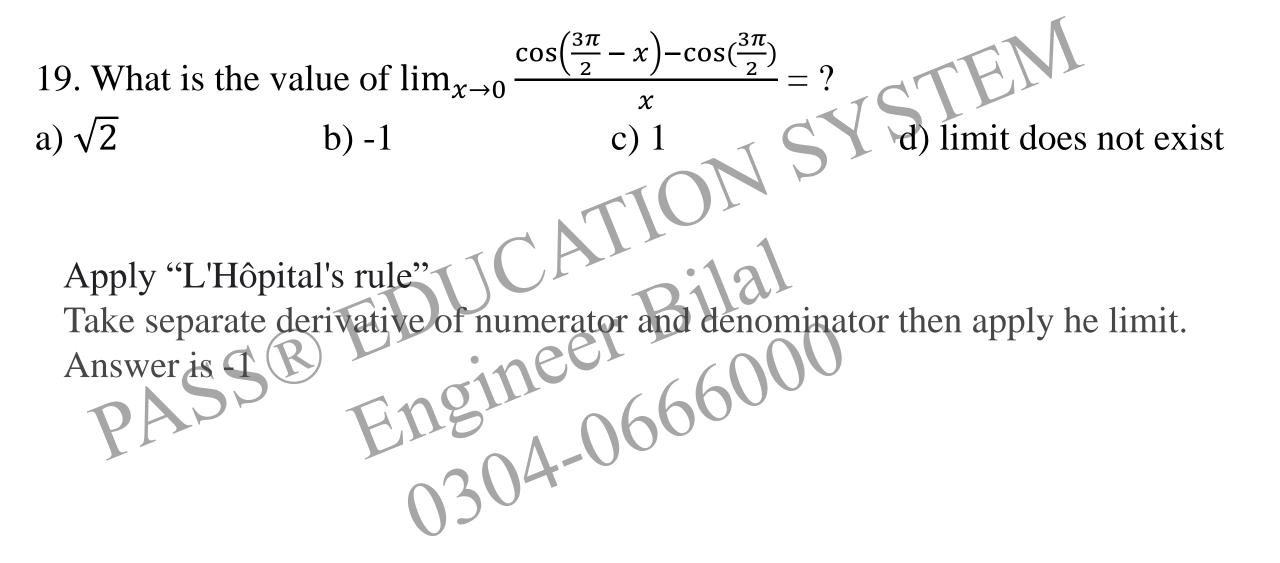


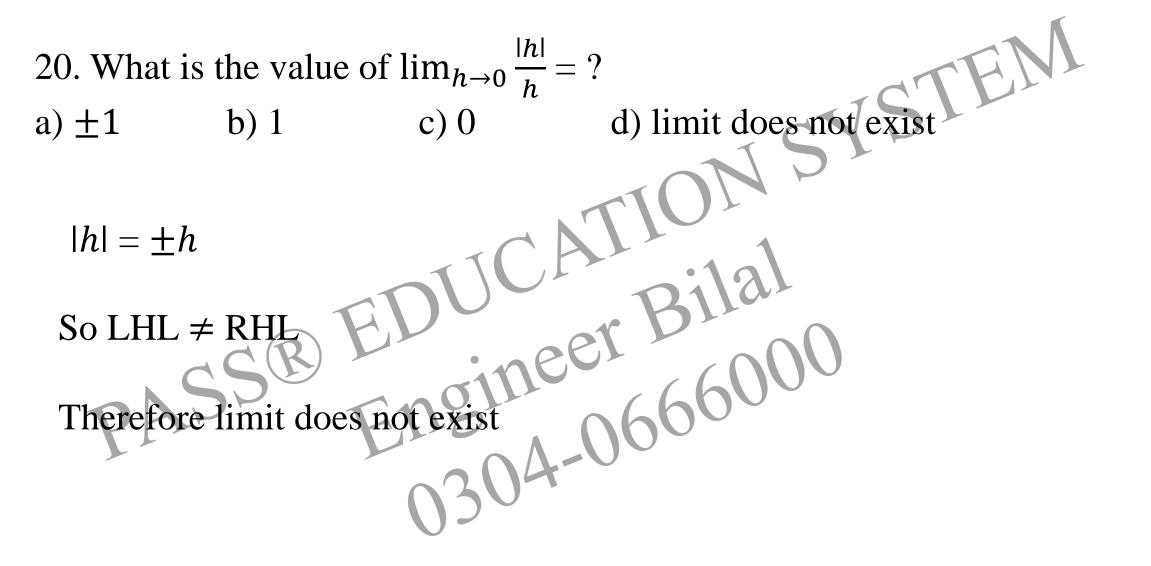
 $\frac{1}{1+1} = \frac{1}{2}$

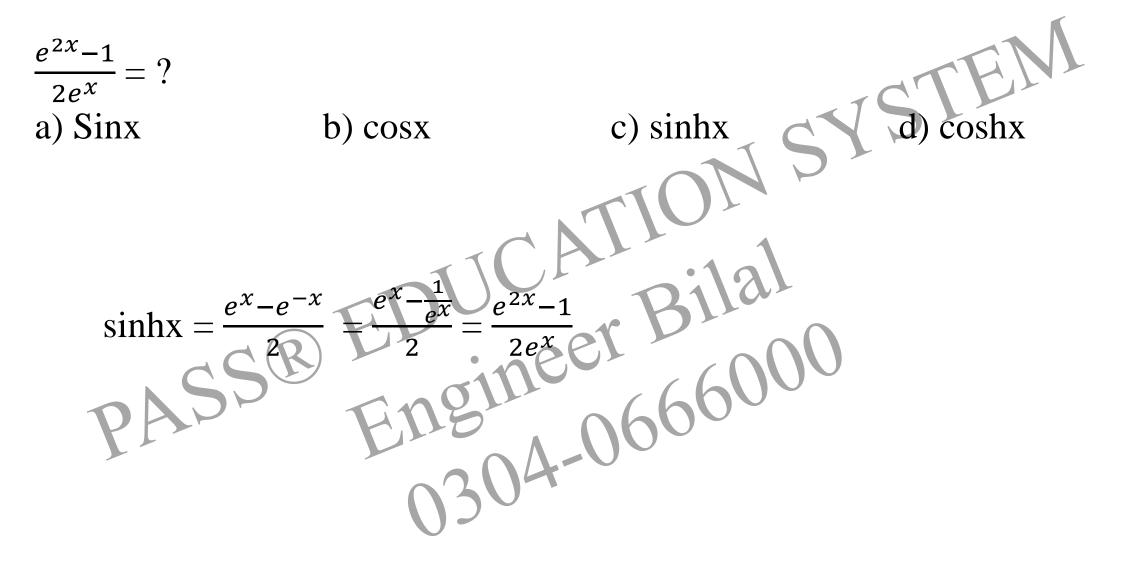


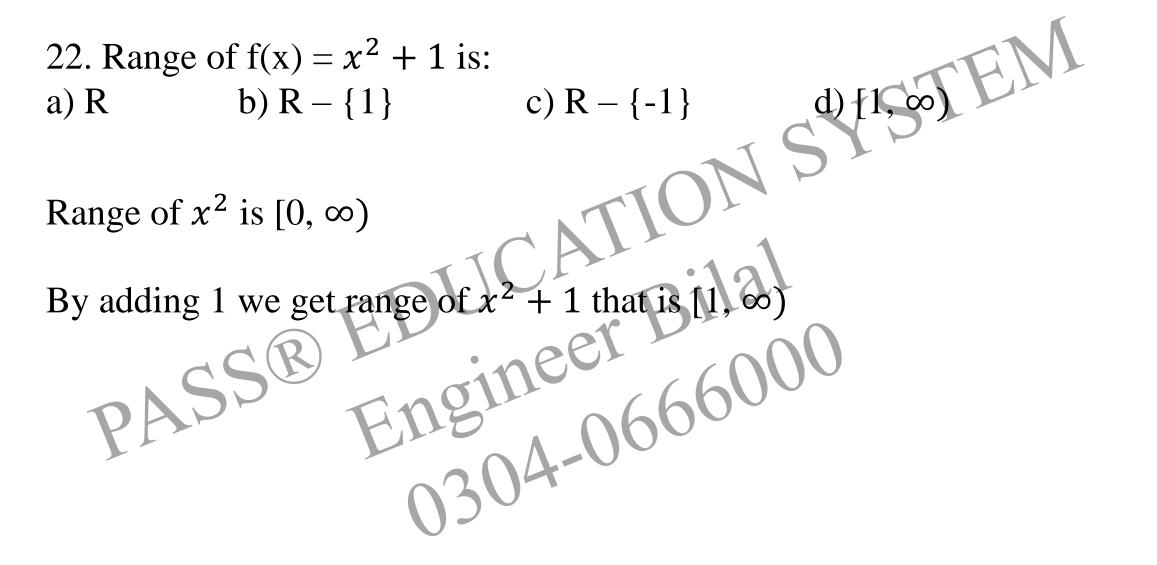


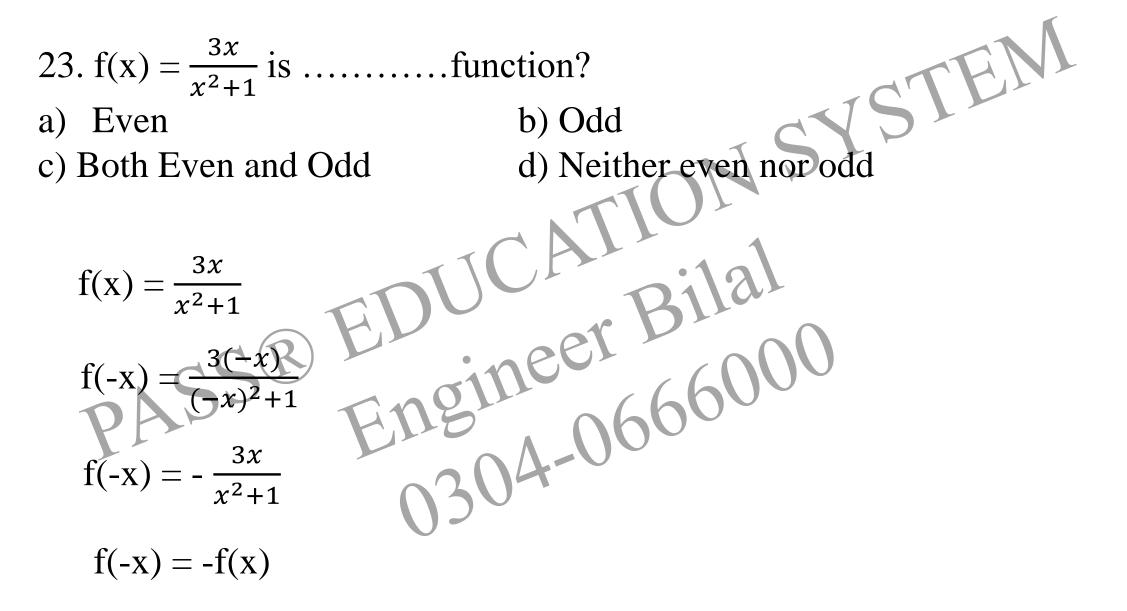
When we add ∞ we get ∞



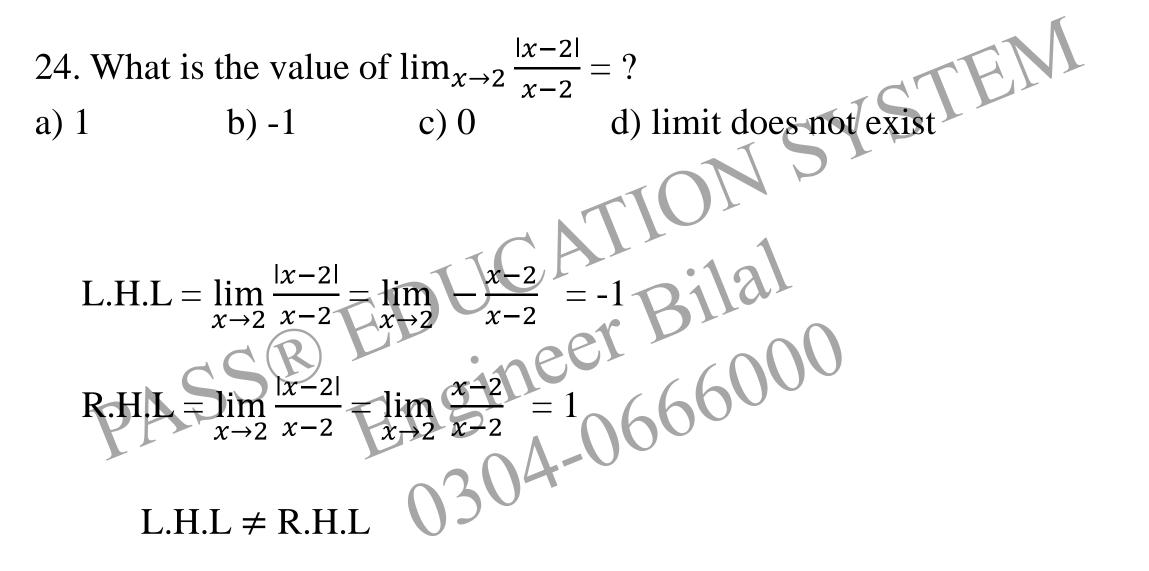




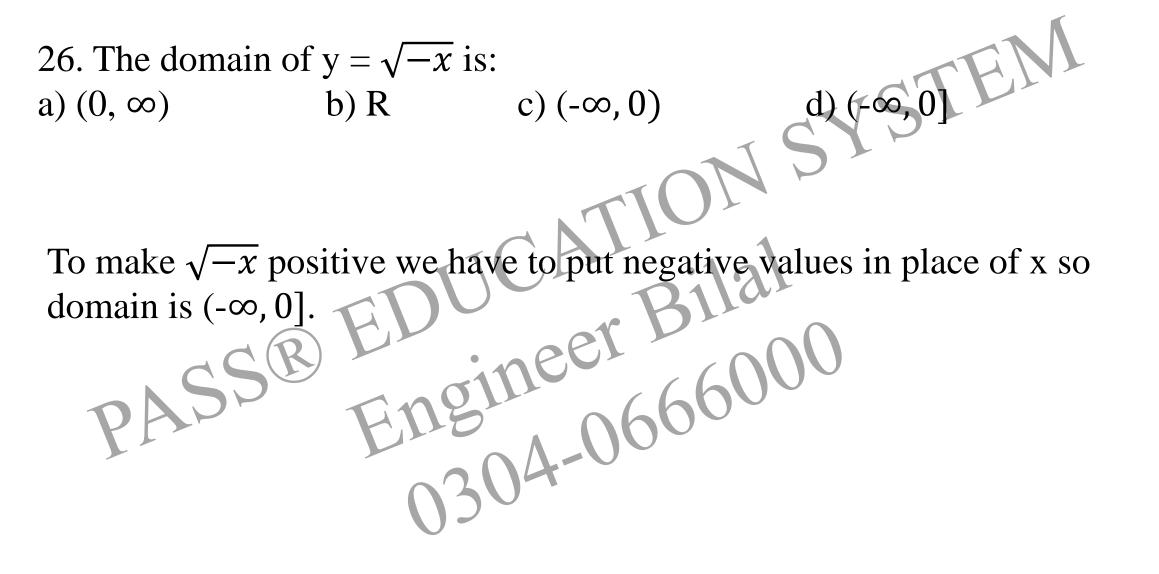




It is an odd function

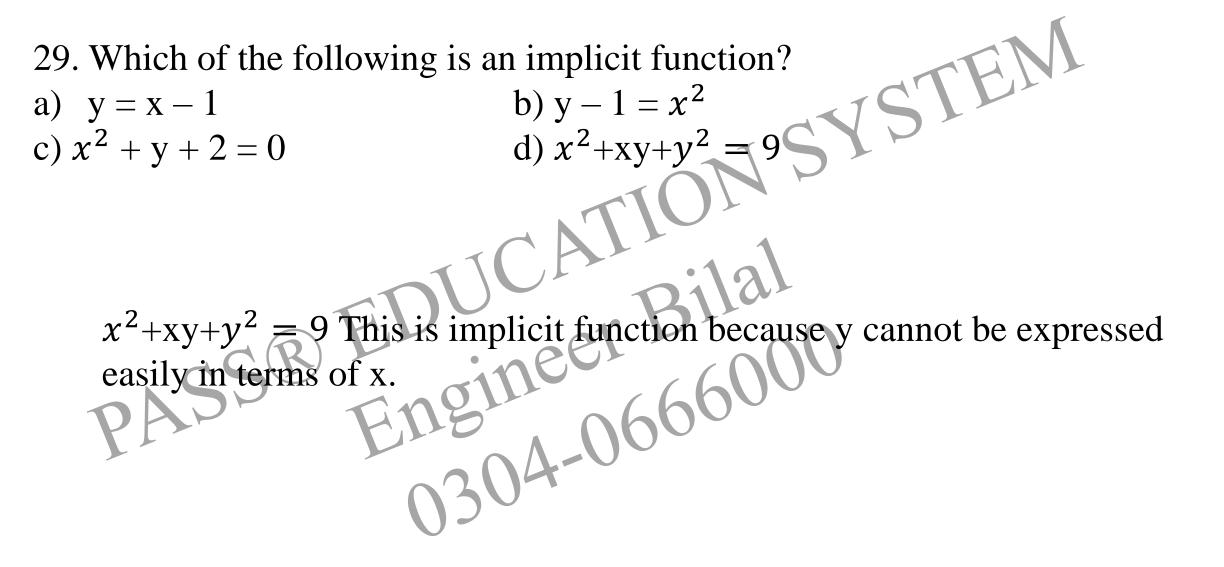


25.
$$f(x) = \sec x \tan x$$
 is a:
a) Odd function
c) Neither even nor odd
 $f(x) = \sec x \tan x$
 $f(-x) = \sec (-x) \tan (-x)$
 $f(-x) = - \sec x \tan x$
 $f(-x) = - f(x)$
 $f(-x) = - f(x)$



27. The domain of the function $y = \frac{1}{\sqrt{16-x^2}}$ is: d) (4, ∞) c) R - (-4, 4)a) (-4, 4) b) [-4, 4] The domain of function is (-4, 4) because 4 and -4 we cannot put undefn 4-0666 into the function otherwise function becomes undefined.

28. The range of the function $f(x) = \frac{1+x^2}{x^2}$ is: a) [0, 1] b) (0, 1) c) (1,∞) The range of $1 + \frac{1}{x^2}$ is: $f(x) = \frac{1+x^2}{x^2}$ (2,∞) So from given options c is correct Range of $\frac{1}{x^2}$ is [1, 21 The range of $1 + \frac{1}{x^2}$ is:



30. The only function which is both even and odd. 151 S b) f(x) = 0d) (a) & (b) a) f(x) = ac) F(x) = xf(x) = 0 is both even as well as odd function.