

MATHEMATICS ASSIGNMENT FOR ALL L4(SOD,ML,NIT)

Analyze the function and determine the properties of a function :(domain of a function, range of a function,

a) $y = \frac{8(x-2)}{x^2}$

b) $y = \frac{x-1}{x-2}$

c) $y = 3x^5 - 5x^3$

d) $y = \frac{2x^3}{x^2+1}$

e) $y = |16 - x^2|$

f) $y = (x^2 - 1)3x$

g) $y = \frac{x^2+1}{x}$

h) $y = -x^4 + 6x^2 - 5$

i) $y = x^2 + \frac{1}{x^2}$

j) $y = \frac{|x-1|}{x+2}$

k) $y = \frac{\ln x}{x} + 1$

l) $y = \sqrt{x-2} - 1$

m) $y = x + 2\arctan x$

n) $y = 2 \times 3^x + 1$

o) $y = \sin x + \cos x$

p) $y = (x-4)\sqrt[3]{x}$

q) $y = \ln \frac{1-x}{1+x}$

r) $y = \left| \frac{x-1}{x+1} \right|$

s) $y = x^3 + 3x$

t) $y = x^2 - 2|x|$

u) $y = (1-x^2)^2$

v) $y = \sqrt{|x-1|}$

w) $y = \frac{x^2-3x}{x+1}$

x) $y = x^2 e^{-x}$

y) $y = 3 + \sin x \cos x$

z) $y = x \arctan x$

Z) $y = \frac{2x}{x^2-1} + x$