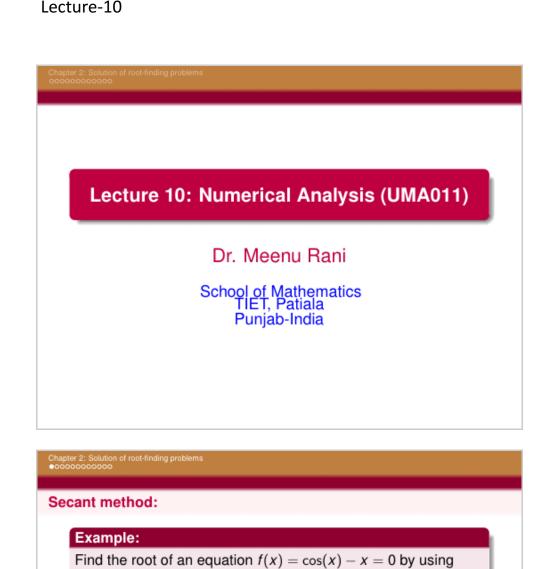
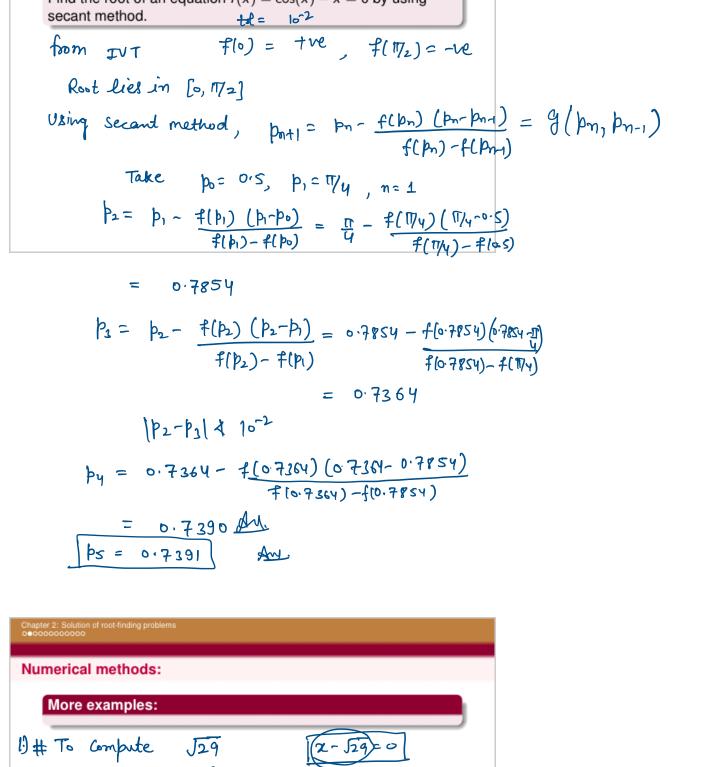
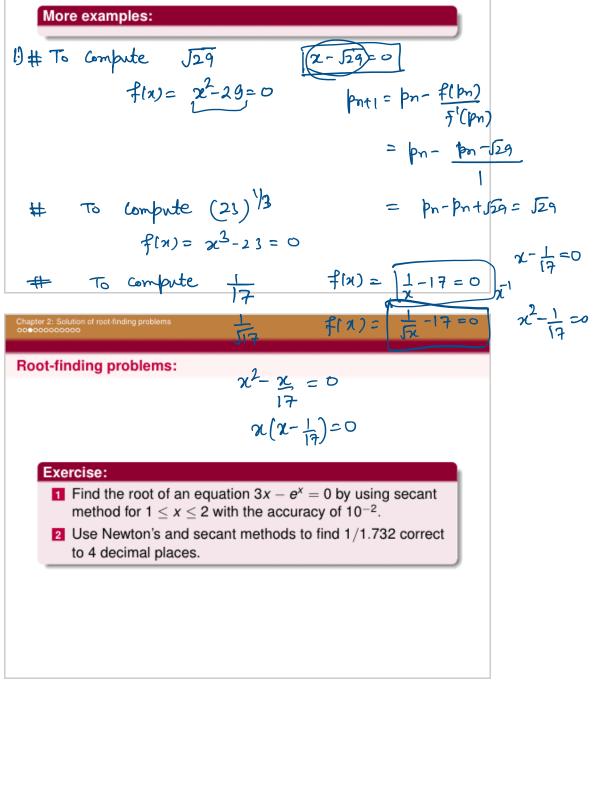
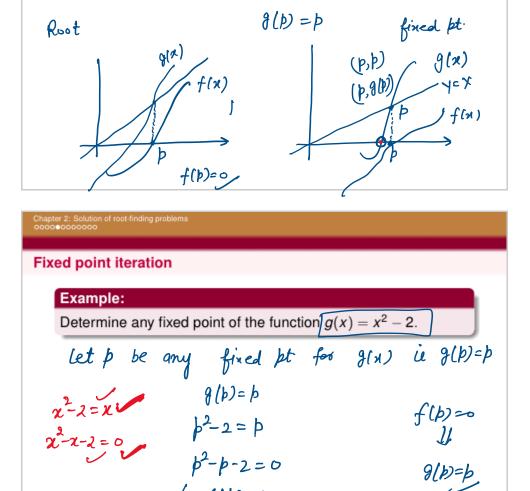
Lecture-10 Thursday, August 18, 2022



1:33 PM







A fixed point for a function g(x) is a number at which the value

fixed pt of g(x)

of function does not change, when function is applied.

pisa

Fixed point iteration

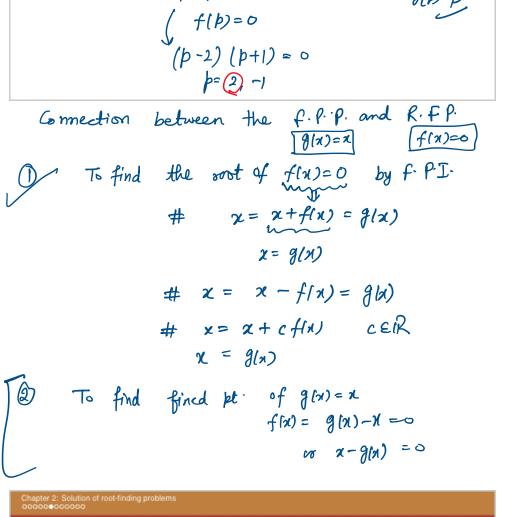
Fixed Point:

Fixed point iteration

0

Fixed point forms:

flb)=0



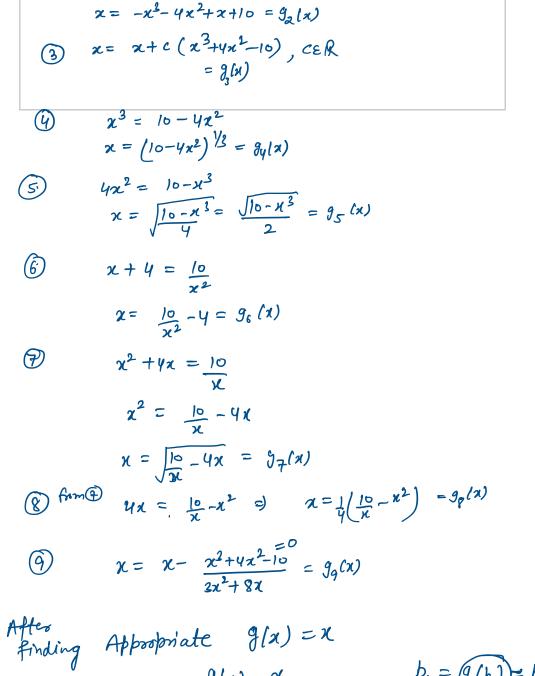
The equation $x^3 + 4x^2 - 10 = 0$ has a unique root in [1,2]. write all the possible ways to change the equation to the

2= 23+4x2 -10+x

(2) $x = x - (x^2 + 4x^2 - 10)$

 $x = x^3 + 4x^2 + x - 10 = g_1(x)$

fixed-point form x = g(x) using simple algebraic manipulation.



 $y(x) = \chi$ $p_{n+1} = g(p_n) \vee$

P3 = 9(B2) = P2

g(x) = x