- 1. Is $y=2\pi$ a linear combination of the functions $y_1=\pi$ and $y_2=\pi^2$?
- 3. Use definition of linear independence defendence of functions to determine if the following sets of functions are L.D. or L.P.
- $g(n) = 2(a_0^2 2sin^2 2s$ (1) (a) f(n) = 9 cm 22 (6) $f(t) = 2t^2$
- (ii) Verify your result by using Wronskian.
- 4. Take two functions f(m) = 62, g(n) = 62+2 By using Wronskian, can you guarantee that they are dependent? Justify. How will you be sure that they an L.D.?
- 5. Solve the Initial value problem $\frac{dy}{dx} = \frac{4x^2-7x}{3y^2+2}$, y(1)=1
- 6. 11 11 11 11 11 11 11 11 3"=2,7 (0) 26, 7(0) 20
- 11 41 +4920 7. Solve the Boundary 11 win BC. (1) 7(0)=-2 か年) 210 (i) y(0) = -2 7 (217) 2 -2 (iii) 7(0) > -2 7(291 = 3 * * * * * * * xxxx