

1- Solve each equation:

a.  $x^3 - 1 = 0$

b.  $\frac{x}{x+1} + \frac{x+1}{x+2} = 1$

c.  $\frac{2(x+1)}{x-2} - \frac{x}{x+1} = \frac{9}{x^2-x-2}$

d.  $x^4 - x^3 = x^2 - x$

e.  $\frac{1}{x} + \frac{2}{x+1} + \frac{3}{x+2} = 0$

2- Solve the following equations:

a.  $\sqrt{t^2 + 1} = -3$

b.  $2x^{\frac{1}{2}} + 3x^{\frac{1}{4}} + 8 = 0$

c.  $\sqrt{3y+1} = y - 1$

d.  $\sqrt{2x-5} - \sqrt{x-3} = 1$

e.  $x^4 - 7x^2 + 12 = 0$

f.  $x^2 - 3 - 4\sqrt{x^2 - 3} - 12 = 0$