5)

- $|g_1'(x)| = |2x/3| = |4/3| > 1 \Rightarrow$ divergence
- $|g_2'(x)| = |3/(2\sqrt{3x-2})| = |3/4| < 1 \Rightarrow$ linear convergence, const
- $|g_3'(x)| = |2/x^2| = (1/2| < 1 \Rightarrow$ linear convergence with constant 0.5
- $|g_4'(x)| = \left|\frac{-2(x^2-2)}{(2x-3)^2} + \frac{2x}{2x-3}\right| = |-4+4| = 0 \Rightarrow$ quadratic convergen