


a) $g(1) = 3 - 3 + 1 = 1 \Rightarrow 1$ je fiksno.

b) $x_1 = g(x_0)$. $x_1 = 3 - 3 \cdot \frac{2}{3} + \left(\frac{2}{3}\right)^3 = \frac{35}{27}$

$x_2 = g(x_1)$

$x_2 = 3 - 3 \cdot \frac{35}{27} + \left(\frac{35}{27}\right)^3$
 $= \underline{\underline{1.289}}$

c) 
 1

konvergencija izrek:

$$|g'(x)| < 1$$

$$|-3 + 3x^2| < 1$$

$$-1 < -3 + 3x^2 < 1$$

$$2 < 3x^2$$

$$3x^2 < 4$$

$$\sqrt{\frac{2}{3}} < x$$

$$x < \sqrt{\frac{4}{3}}$$

$$I = \left(\sqrt{\frac{2}{3}}, \sqrt{\frac{4}{3}} \right)$$