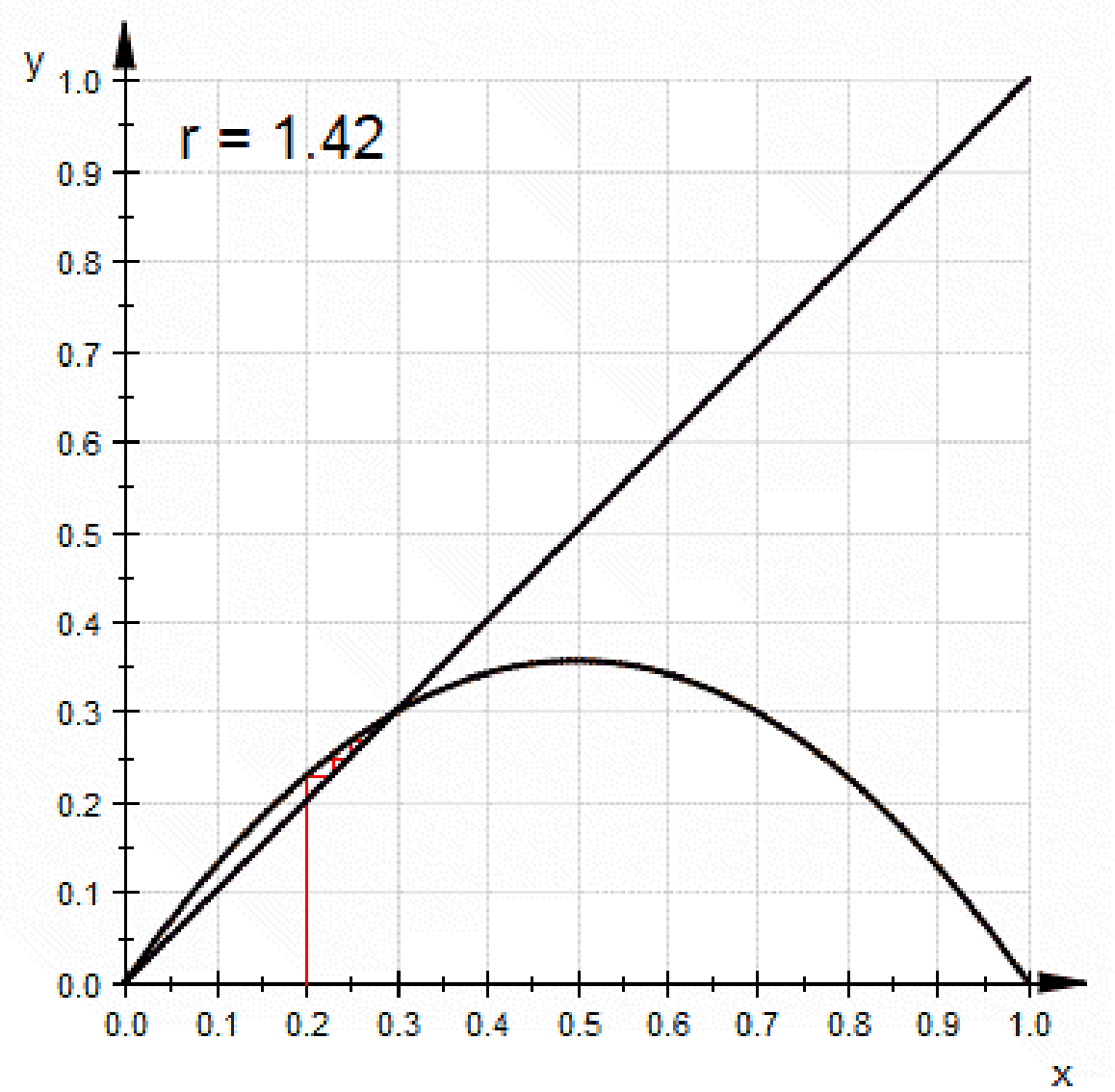
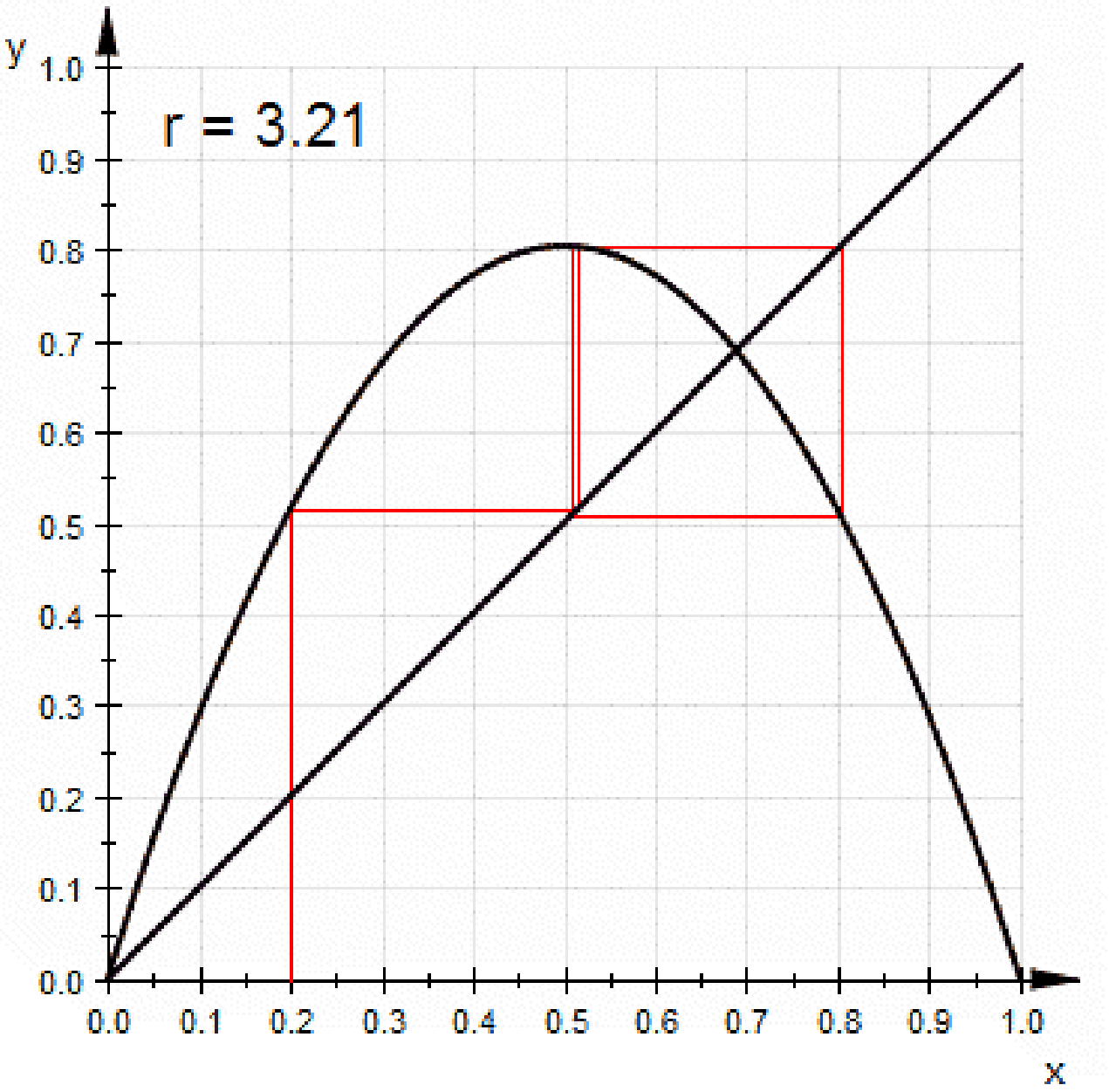
The iterated logistic map:
x(n+1)=r*x(n)*(1-x(n))



Images from http://en.academic.ru/pictures/enwiki/76/LogisticCobwebChaos.gif


r = 3.21
y
x
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0