With looping times

est\_gp = SymbolicRegressor(population\_size=1000,

generations=50, stopping\_criteria=150,

p\_crossover=0.8, p\_subtree\_mutation=0.05, function\_set=function\_set,

p\_hoist\_mutation=0.1,

p\_point\_mutation=0.01,

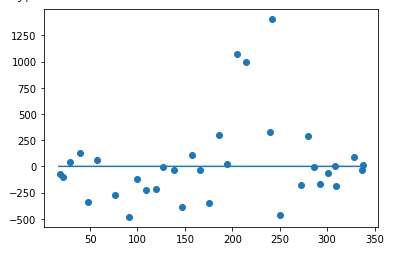
max\_samples=0.90, verbose=1,

parsimony\_coefficient=.001, random\_state=0)

div(div(cos(sin(cos(0.256))), 0.585), X0)

= 1.16190996849302/X0

R2: -0.006529285025093756



est\_gp = SymbolicRegressor(population\_size=1000,

generations=50, stopping\_criteria=150,

p\_crossover=0.8, p\_subtree\_mutation=0.05, function\_set=function\_set,

p\_hoist\_mutation=0.1,

p\_point\_mutation=0.01,

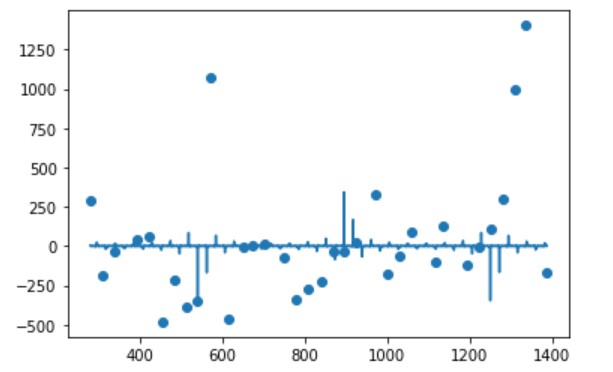
max\_samples=0.90, verbose=1,

parsimony\_coefficient=.0001, random\_state=0)

sub(sub(mul(sqrt(mul(sqrt(sqrt(sqrt(inv(cos(sub(0.035, 0.215)))))), -0.363)), sub(inv(-0.774), add(add(0.691, sqrt(0.320)), -0.844))), inv(sin(sub(-0.351, X0)))), div(inv(sqrt(-0.267)), sub(X0, X0)))

= 1/sin(X0 + 0.351)

R2: 0.015641479625705168



Last run:

797 3640.99 192.985 4399 99.2893 836.06 223.87m

R2: 0.2767081454400052

**Day of Year (no loop); Function set has no sqrt**

est\_gp = SymbolicRegressor(population\_size=1000,

generations=2000, stopping\_criteria=101,

p\_crossover=0.8, p\_subtree\_mutation=0.05, function\_set=function\_set,

p\_hoist\_mutation=0.1,

p\_point\_mutation=0.01,

max\_samples=0.90, verbose=1,

parsimony\_coefficient=.001, random\_state=0)

div(inv(div(div(add(div(div(mul(div(div(inv(sin(0.859)), -0.830), div(div(div(add(div(div(add(-0.830, div(inv(add(0.859, div(-0.964, add(div(div(neg(0.532), neg(X0)), inv(sub(X0, 0.900))), sin(div(neg(X0), cos(X0))))))), mul(div(div(inv(sin(0.859)), -0.830), div(div(div(add(div(div(mul(add(div(sin(0.859), mul(div(add(mul(div(neg(-0.408), inv(div(inv(div(-0.964, div(X0, -0.357))), -0.830))), cos(X0)), 0.900), -0.830), -0.698)), div(div(0.859, div(add(div(mul(div(inv(sin(0.859)), div(div(-0.964, neg(sub(X0, 0.900))), sin(div(0.859, div(sin(X0), sub(-0.357, sin(0.566))))))), -0.698), mul(div(inv(div(inv(add(0.859, div(-0.964, add(div(div(neg(0.532), neg(X0)), inv(sub(X0, 0.900))), sin(div(inv(sin(0.859)), add(div(div(sub(mul(add(0.859, div(-0.964, cos(X0))), -0.698), sin(-0.702)), neg(-0.821)), sin(neg(X0))), sin(cos(X0))))))))), mul(div(div(neg(-0.821), -0.830), div(div(div(sin(div(-0.964, X0)), -0.830), neg(-0.821)), -0.830)), -0.698))), -0.830), -0.698)), neg(inv(-0.824))), sub(-0.357, sin(0.566)))), mul(div(div(0.859, div(0.863, -0.830)), sub(X0, div(add(inv(X0), sub(add(div(mul(div(inv(sin(0.859)), div(sub(-0.148, 0.900), sin(div(0.859, div(sin(X0), sub(-0.357, sin(0.566))))))), -0.698), X0), -0.908), neg(div(X0, -0.357)))), -0.830))), mul(div(div(0.859, div(0.863, -0.830)), sub(-0.148, 0.900)), mul(sin(X0), div(X0, -0.357)))))), -0.830), sin(mul(add(div(inv(div(X0, -0.357)), -0.830), div(div(div(div(sub(sin(sub(mul(div(div(sub(X0, 0.900), X0), div(inv(sub(0.859, add(0.586, X0))), neg(X0))), -0.698), -0.830)), mul(sub(X0, sub(X0, 0.900)), -0.698)), inv(div(mul(sin(0.859), -0.698), div(div(0.859, div(X0, -0.830)), add(X0, 0.400))))), mul(mul(inv(0.900), -0.698), div(neg(-0.010), div(div(0.859, div(0.859, -0.830)), div(0.900, div(inv(X0), mul(div(0.900, div(inv(div(-0.964, add(div(0.863, -0.830), div(inv(add(0.859, neg(mul(div(0.900, div(inv(inv(add(0.859, div(-0.964, div(X0, -0.357))))), mul(div(0.900, div(inv(sin(inv(add(0.859, div(-0.964, div(X0, -0.357)))))), neg(0.859))), -0.698))), -0.698)))), cos(X0))))), neg(-0.821))), -0.698))))))), inv(0.900)), -0.830)), -0.830))), inv(0.900)), sub(add(X0, -0.830), div(div(neg(0.532), sub(X0, div(add(mul(div(sin(mul(inv(mul(sin(div(add(div(div(add(-0.830, div(sub(sin(sub(mul(div(div(sub(X0, 0.900), X0), div(inv(sub(0.859, add(0.586, X0))), neg(X0))), -0.698), -0.830)), mul(sub(X0, sub(X0, 0.900)), -0.698)), mul(div(div(inv(sin(0.859)), -0.830), div(div(div(add(div(div(mul(add(div(-0.964, X0), div(div(0.859, div(div(add(-0.830, div(inv(div(inv(div(X0, -0.357)), -0.830)), mul(div(div(neg(-0.821), -0.830), div(div(div(div(mul(div(div(inv(div(div(inv(sin(0.859)), -0.830), sin(add(div(sin(cos(X0)), sin(div(sub(add(X0, -0.830), div(div(neg(0.532), neg(X0)), sin(0.859))), cos(X0)))), -0.908)))), -0.830), sin(add(div(sin(cos(X0)), sin(div(sub(add(X0, -0.830), div(div(neg(0.532), neg(X0)), inv(div(inv(div(0.859, neg(-0.821))), -0.357)))), cos(X0)))), -0.908))), -0.698), sin(cos(div(inv(sin(mul(add(div(neg(X0), div(X0, -0.357)), div(mul(div(X0, -0.357), -0.698), sin(mul(add(div(mul(div(0.900, div(inv(div(add(div(inv(sin(0.859)), neg(X0)), sub(add(X0, -0.830), div(div(neg(0.532), neg(X0)), inv(div(inv(div(0.859, inv(sin(0.859)))), -0.357))))), -0.830)), mul(div(0.900, div(inv(sin(inv(add(0.859, div(-0.964, div(X0, -0.357)))))), div(0.859, div(0.859, -0.830)))), -0.698))), -0.698), div(sub(X0, 0.900), div(inv(0.900), div(X0, -0.357)))), sub(div(-0.964, add(inv(div(div(div(mul(div(div(inv(sin(0.859)), -0.830), sin(add(div(sin(cos(X0)), div(X0, -0.357)), -0.908))), -0.698), sin(cos(div(inv(sin(mul(add(div(neg(X0), div(X0, -0.357)), div(mul(div(X0, -0.357), -0.698), sin(mul(add(div(mul(div(0.900, div(inv(div(add(div(div(0.900, cos(add(add(neg(div(neg(X0), X0)), inv(sin(0.859))), cos(X0)))), neg(X0)), sub(add(0.859, div(-0.964, div(div(div(inv(div(-0.964, div(X0, -0.357))), -0.830), mul(div(div(add(div(sub(sin(sub(sub(mul(div(div(0.859, div(0.863, -0.830)), sub(X0, 0.900)), -0.698), sin(-0.702)), -0.830)), mul(div(sub(sin(sub(mul(neg(-0.821), -0.698), -0.830)), mul(mul(div(inv(sin(0.859)), -0.830), -0.964), -0.698)), inv(div(mul(sin(0.859), -0.698), div(div(0.859, sin(0.859)), sub(X0, 0.900))))), -0.698)), inv(div(-0.964, -0.698))), sub(inv(div(div(inv(add(0.859, div(inv(add(0.859, div(-0.964, div(X0, -0.357)))), cos(X0)))), cos(X0)), mul(div(inv(sin(mul(add(div(inv(sin(0.859)), div(X0, -0.357)), div(mul(div(X0, -0.357), -0.698), sin(mul(add(div(mul(div(0.900, div(inv(div(add(div(inv(div(0.442, X0)), neg(X0)), sub(div(X0, -0.357), div(div(neg(0.532), neg(X0)), inv(div(inv(div(0.859, neg(-0.821))), -0.357))))), -0.830)), mul(div(0.900, div(inv(sin(inv(add(0.859, div(-0.964, div(neg(0.532), neg(X0))))))), inv(div(0.859, div(-0.964, cos(X0)))))), -0.698))), -0.698), div(sub(X0, 0.900), -0.830)), sub(div(-0.964, add(inv(sin(0.859)), sin(div(neg(X0), cos(X0))))), sin(0.566))), -0.830)))), -0.830))), neg(-0.821)), -0.698))), inv(add(0.859, div(-0.964, div(X0, -0.357)))))), -0.830), mul(div(0.900, neg(-0.821)), -0.698)), -0.698)), inv(0.900)))), div(div(neg(0.532), neg(X0)), inv(div(inv(div(0.859, neg(-0.821))), -0.357))))), -0.830)), mul(div(0.900, div(inv(sin(inv(add(0.859, div(-0.964, div(X0, -0.357)))))), div(0.859, div(0.859, -0.830)))), -0.698))), -0.698), div(sub(X0, 0.900), div(div(mul(div(div(inv(sin(0.859)), -0.830), sin(add(div(mul(div(sin(0.859), div(div(-0.964, div(X0, -0.357)), sin(cos(X0)))), -0.698), sin(div(inv(add(0.859, div(sub(X0, 0.900), -0.830))), div(-0.964, div(X0, -0.357))))), -0.908))), -0.698), sin(cos(div(inv(sin(mul(add(div(neg(X0), div(X0, -0.357)), div(mul(div(X0, -0.357), -0.698), sin(mul(add(div(mul(div(0.900, div(inv(div(add(div(div(0.900, cos(add(add(div(X0, -0.357), inv(sin(0.859))), cos(X0)))), neg(X0)), sub(div(X0, -0.357), div(div(neg(0.532), neg(X0)), inv(div(inv(div(0.859, neg(-0.821))), -0.357))))), -0.830)), mul(div(0.900, div(inv(sin(inv(add(0.859, div(-0.964, div(div(div(0.859, div(-0.964, add(neg(-0.821), neg(-0.821)))), neg(X0)), div(div(div(add(div(div(div(0.859, div(X0, -0.830)), div(neg(X0), inv(sin(0.859)))), inv(0.900)), sub(add(X0, -0.830), inv(sub(X0, 0.900)))), -0.830), neg(-0.821)), -0.830))))))), div(0.859, div(0.859, -0.830)))), -0.698))), -0.698), div(sub(X0, 0.900), -0.830)), sub(div(-0.964, add(div(mul(mul(div(inv(sin(0.859)), -0.830), -0.964), -0.698), inv(0.900)), sin(div(neg(X0), cos(X0))))), neg(div(X0, -0.357)))), -0.830)))), -0.830))), neg(-0.821))))), div(sin(0.859), mul(div(add(mul(div(neg(-0.408), inv(div(inv(div(-0.964, div(X0, -0.357))), -0.830))), cos(X0)), 0.900), -0.830), -0.698))))), sub(div(-0.964, div(X0, -0.357)), sin(0.566))), -0.830)))), -0.830))), neg(-0.821))))), div(X0, -0.357)), neg(-0.821))), sin(div(neg(X0), neg(-0.821))))), sin(0.566))), -0.830)))), -0.830))), neg(-0.821))))), div(X0, -0.357)), neg(-0.821)), -0.830)), -0.698))), div(div(inv(add(0.859, div(-0.964, div(X0, -0.357)))), cos(X0)), mul(div(0.900, div(inv(sin(0.859)), mul(div(0.859, neg(-0.821)), -0.698))), -0.698))), sub(-0.357, sin(0.566)))), mul(div(0.863, -0.830), mul(div(div(0.859, div(div(inv(sub(0.859, add(0.586, X0))), neg(X0)), -0.830)), sub(-0.148, 0.900)), mul(sin(X0), div(inv(div(X0, -0.357)), -0.830)))))), -0.830), div(neg(X0), sub(sin(mul(add(div(mul(div(div(sub(mul(add(0.859, div(-0.964, cos(X0))), -0.698), sin(-0.702)), inv(add(0.859, div(-0.964, div(X0, -0.357))))), sin(sin(sub(-0.416, 0.158)))), -0.698), div(div(inv(-0.357), -0.357), mul(div(div(0.859, div(div(div(inv(div(-0.964, div(X0, -0.357))), -0.830), mul(div(div(add(div(sub(sin(sub(sub(mul(div(div(0.859, div(0.863, -0.830)), sub(X0, 0.900)), -0.698), sin(-0.702)), -0.830)), mul(div(sub(sin(sub(mul(neg(-0.821), -0.698), -0.830)), mul(mul(div(inv(sin(0.859)), -0.830), -0.964), -0.698)), inv(div(mul(sin(0.859), -0.698), div(div(0.859, sin(0.859)), sub(X0, 0.900))))), -0.698)), inv(div(-0.964, -0.698))), sub(inv(div(div(inv(add(0.859, div(-0.964, div(X0, -0.357)))), cos(X0)), mul(div(inv(sin(mul(add(div(inv(sin(0.859)), div(X0, -0.357)), div(mul(div(X0, -0.357), -0.698), sin(mul(add(div(mul(div(0.900, div(inv(div(add(div(inv(div(0.442, X0)), neg(X0)), sub(div(X0, -0.357), div(div(neg(0.532), neg(X0)), inv(div(inv(div(0.859, neg(-0.821))), -0.357))))), -0.830)), mul(div(0.900, div(inv(sin(inv(add(0.859, div(-0.964, div(neg(0.532), neg(X0))))))), inv(div(0.859, div(-0.964, cos(X0)))))), -0.698))), -0.698), div(sub(X0, 0.900), -0.830)), sub(div(-0.964, add(inv(sin(0.859)), sin(div(neg(X0), cos(X0))))), sin(0.566))), -0.830)))), -0.830))), neg(-0.821)), -0.698))), inv(add(0.859, div(-0.964, div(X0, -0.357)))))), -0.830), mul(div(0.900, neg(-0.821)), -0.698)), -0.698)), inv(0.900))), sub(-0.148, 0.900)), div(0.859, neg(-0.821))))), div(mul(div(div(add(div(X0, -0.357), div(div(0.859, div(div(add(-0.830, div(inv(add(0.859, div(-0.964, inv(div(-0.964, div(X0, -0.357)))))), mul(div(div(neg(-0.821), -0.830), div(div(div(div(mul(div(div(inv(sin(0.859)), -0.830), sin(add(div(sin(cos(X0)), sin(cos(X0))), -0.908))), -0.698), sin(cos(div(inv(sin(mul(add(div(neg(X0), div(X0, -0.357)), div(mul(div(X0, -0.357), -0.698), sin(mul(add(div(mul(div(0.900, div(inv(div(add(div(div(0.900, cos(add(add(neg(div(X0, X0)), inv(sin(0.859))), neg(X0)))), neg(X0)), sub(add(0.859, div(-0.964, div(X0, -0.357))), div(div(neg(0.532), neg(X0)), inv(div(inv(cos(0.052)), -0.357))))), -0.830)), mul(div(0.900, div(inv(div(neg(-0.821), -0.830)), div(0.859, div(0.859, -0.830)))), -0.698))), -0.698), div(sub(X0, 0.900), div(div(mul(div(div(inv(sin(0.859)), -0.830), sin(add(div(mul(div(sin(0.859), div(div(-0.964, div(X0, -0.357)), sin(cos(X0)))), -0.698), sin(div(inv(add(0.859, div(sub(X0, 0.900), -0.830))), cos(X0)))), -0.908))), -0.698), sin(cos(div(inv(sin(div(neg(0.532), neg(X0)))), neg(-0.821))))), inv(div(inv(div(0.859, neg(-0.821))), -0.357))))), sub(div(-0.964, div(X0, -0.357)), sin(0.566))), -0.830)))), -0.830))), neg(-0.821))))), div(X0, -0.357)), neg(-0.821)), -0.830)), -0.698))), div(div(inv(add(0.859, div(-0.964, div(X0, -0.357)))), cos(X0)), mul(div(0.900, div(inv(sin(0.859)), mul(div(0.859, neg(-0.821)), -0.698))), -0.698))), sub(-0.357, sin(0.566)))), mul(div(0.863, -0.830), mul(div(div(0.859, -0.830), sub(-0.148, 0.900)), neg(-0.821))))), -0.830), div(inv(div(X0, -0.357)), -0.830)), -0.698), sin(inv(add(X0, -0.908))))), -0.830)), sin(0.566)))), inv(0.900)), div(0.859, div(0.859, -0.830))), -0.830), neg(-0.821)), -0.830)), -0.698))), div(div(inv(add(0.859, div(-0.964, div(X0, -0.357)))), cos(X0)), mul(div(0.900, div(div(neg(0.532), sin(0.900)), mul(div(0.900, div(inv(sin(inv(add(0.859, div(-0.964, div(X0, -0.357)))))), neg(0.859))), -0.698))), -0.698))), inv(0.900)), div(0.900, div(inv(inv(add(0.859, div(-0.964, div(X0, -0.357))))), mul(div(0.863, -0.830), -0.698)))), -0.830)), -0.830)), inv(div(div(add(-0.830, sub(X0, 0.900)), div(X0, -0.357)), inv(0.900))))), X0), mul(inv(add(0.859, div(-0.964, div(X0, -0.357)))), -0.698)), div(-0.964, div(X0, -0.357))), -0.830))), inv(div(inv(div(0.859, neg(-0.821))), -0.357))))), -0.830), neg(-0.821)), -0.830)), -0.698))), div(neg(X0), inv(sin(0.859)))), inv(0.900)), sub(add(X0, -0.830), inv(div(0.900, div(inv(X0), mul(div(0.900, div(inv(inv(add(0.859, div(-0.964, div(X0, -0.357))))), -0.821)), -0.698)))))), -0.830), neg(-0.821)), -0.830)), -0.698), sin(sin(0.859))), inv(sub(X0, 0.900))), sin(div(inv(add(0.859, div(-0.964, div(X0, -0.357)))), cos(X0)))), div(div(0.581, -0.832), 0.859)), neg(-0.821))), -0.357)

R2: 0.44225875759821864

**Day of Year (no loop); with sqrt function which led to simplifying error**

est\_gp = SymbolicRegressor(population\_size=1000,   
generations=1000, stopping\_criteria=100,   
p\_crossover=0.8, p\_subtree\_mutation=0.05, function\_set=function\_set,  
p\_hoist\_mutation=0.1,   
p\_point\_mutation=0.01,  
max\_samples=0.90, verbose=1,  
parsimony\_coefficient=.001, random\_state=0)

sub(sub(sub(sub(mul(sub(sub(mul(inv(cos(sub(add(X0, 0.220), mul(X0, X0)))), sub(X0, X0)), inv(sub(mul(sqrt(inv(sin(sin(sqrt(sqrt(-0.418)))))), 0.242), sub(sin(mul(0.136, X0)), sqrt(sub(sqrt(-0.418), neg(sin(sub(sqrt(-0.041), inv(sqrt(-0.267))))))))))), inv(sin(sub(div(sin(cos(-0.755)), inv(sqrt(sub(mul(X0, sqrt(sin(sqrt(X0)))), inv(-0.774))))), X0)))), mul(sqrt(sub(sub(inv(-0.774), inv(neg(sin(inv(sin(sqrt(X0))))))), neg(sin(inv(sqrt(sub(sub(inv(sqrt(sub(mul(X0, cos(-0.755)), inv(sin(sqrt(sqrt(sin(sub(mul(sub(sub(X0, X0), sub(mul(sub(mul(sqrt(sub(mul(X0, add(0.494, X0)), sqrt(-0.267))), 0.242), sqrt(sub(sub(sin(inv(sqrt(sub(sub(sqrt(-0.418), inv(inv(sub(mul(sqrt(sub(mul(cos(sub(X0, X0)), inv(0.109)), sin(sqrt(-0.418)))), 0.242), X0)))), sqrt(sub(sqrt(-0.418), neg(sub(sub(inv(-0.774), inv(neg(sin(inv(sin(sqrt(sub(inv(-0.774), sqrt(sqrt(sqrt(sqrt(sin(-0.357))))))))))))), neg(sin(inv(sqrt(sub(sub(inv(sqrt(sub(mul(X0, cos(-0.755)), inv(sin(sqrt(sqrt(sin(mul(sin(-0.357), sqrt(sub(sub(inv(sin(sqrt(-0.418))), sqrt(sqrt(mul(sqrt(-0.418), sub(sqrt(X0), X0))))), inv(mul(sqrt(sub(sqrt(-0.267), sqrt(0.913))), sub(X0, X0)))))))))))))), inv(inv(sub(div(X0, -0.556), sin(sqrt(neg(0.747))))))), sqrt(X0)))))))))))))), inv(sin(-0.357))), div(sqrt(cos(sub(mul(sub(sub(X0, X0), sub(mul(sqrt(sub(mul(sqrt(add(-0.351, X0)), sqrt(X0)), inv(X0))), sqrt(sub(sqrt(sub(sqrt(sin(sqrt(X0))), inv(-0.774))), inv(sqrt(-0.267))))), inv(sin(sub(-0.351, X0))))), sqrt(sub(sqrt(sub(sqrt(sub(sqrt(sin(sqrt(X0))), inv(-0.774))), inv(sqrt(-0.267)))), sub(mul(sub(X0, X0), inv(0.109)), sqrt(mul(sqrt(sub(mul(inv(sin(add(-0.351, X0))), inv(0.109)), sqrt(sub(sub(sub(sqrt(X0), X0), mul(div(sqrt(mul(X0, 0.352)), div(X0, -0.556)), inv(0.109))), div(sqrt(sin(sqrt(sqrt(-0.418)))), inv(sqrt(-0.267))))))), 0.242)))))), neg(div(-0.681, -0.418))))), inv(sqrt(-0.267)))))), sqrt(sin(sqrt(sqrt(0.352))))), inv(sin(sub(-0.351, X0))))), inv(0.109)), sub(X0, X0)))))))))), inv(inv(sub(div(X0, -0.556), sin(inv(inv(neg(sin(inv(sqrt(sub(sub(sqrt(-0.418), inv(inv(sub(mul(sqrt(sub(mul(cos(sub(X0, X0)), inv(0.109)), sin(sqrt(-0.418)))), 0.242), X0)))), sqrt(mul(sub(neg(sub(-0.887, -0.408)), sub(sub(0.557, X0), cos(X0))), sqrt(cos(sub(X0, X0))))))))))))))))), sqrt(sin(sqrt(sub(sqrt(-0.418), mul(sqrt(sub(inv(-0.774), inv(div(sub(sin(-0.774), inv(sub(mul(div(sub(sub(div(X0, -0.556), inv(sin(-0.357))), div(sqrt(sub(-0.351, X0)), inv(sqrt(-0.267)))), inv(sqrt(-0.267))), 0.242), inv(sin(sub(-0.351, X0)))))), sub(X0, inv(div(sin(sqrt(-0.041)), mul(0.136, X0)))))))), 0.242)))))))))))), 0.242)), sqrt(sub(-0.351, X0))), inv(sub(mul(sqrt(inv(sin(sin(sqrt(sqrt(-0.418)))))), 0.242), sub(sin(sub(mul(sqrt(sub(mul(X0, sub(X0, 0.520)), sub(sqrt(-0.418), inv(inv(sub(inv(0.109), X0)))))), 0.242), sin(neg(X0)))), sqrt(sub(sqrt(-0.418), neg(sin(sub(sqrt(-0.041), inv(sqrt(-0.267))))))))))), inv(sin(sub(div(sin(cos(-0.755)), inv(sqrt(sub(mul(X0, sqrt(sin(sqrt(X0)))), inv(-0.774))))), X0)))), div(inv(sin(cos(-0.755))), sub(sub(mul(inv(neg(sub(mul(sqrt(sub(div(inv(sin(inv(sqrt(-0.267)))), sub(-0.351, X0)), inv(sub(sub(mul(X0, sqrt(sin(inv(sin(0.123))))), inv(-0.774)), inv(sub(inv(sqrt(sqrt(sqrt(sqrt(sin(-0.357)))))), inv(sin(cos(sub(mul(X0, cos(-0.755)), inv(sqrt(sin(X0))))))))))))), 0.242), div(sqrt(X0), -0.351)))), sub(X0, X0)), inv(sub(mul(sqrt(sub(mul(cos(sub(X0, X0)), inv(0.109)), sqrt(sub(sub(inv(sin(mul(0.136, X0))), inv(sin(-0.357))), div(sqrt(sub(-0.351, X0)), inv(sqrt(-0.267))))))), 0.242), inv(sin(sub(-0.351, X0)))))), inv(sub(mul(sqrt(sub(mul(inv(sin(add(-0.351, X0))), inv(0.109)), sqrt(sub(sub(sub(sqrt(X0), X0), mul(div(sqrt(mul(X0, 0.352)), div(X0, -0.556)), inv(0.109))), div(sqrt(sin(sqrt(sqrt(-0.418)))), inv(sqrt(-0.267))))))), 0.242), inv(sin(sub(-0.351, X0))))))))

R2: 0.7514987348935974