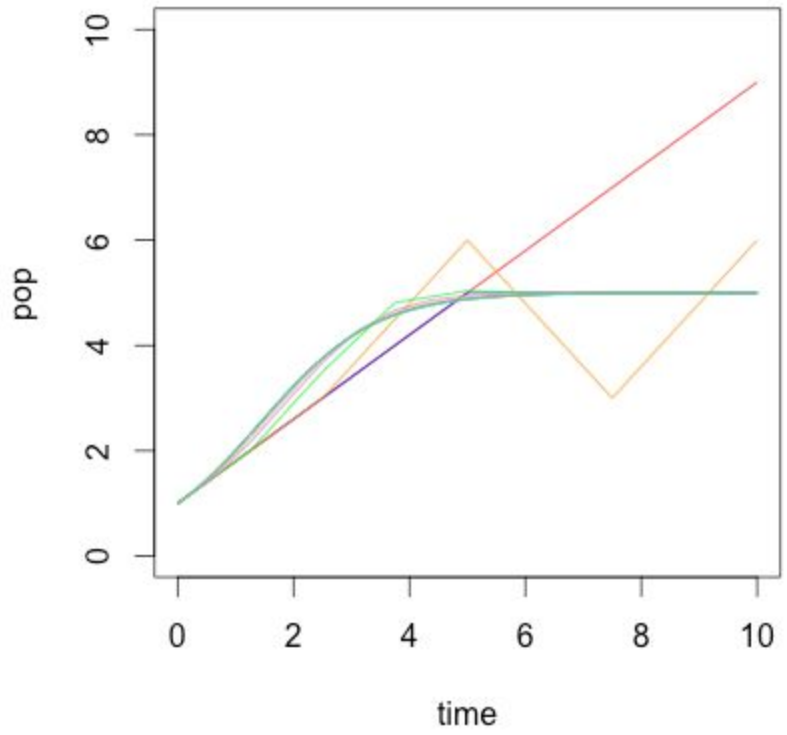
2.2

---

6. t ≈ 44

11.

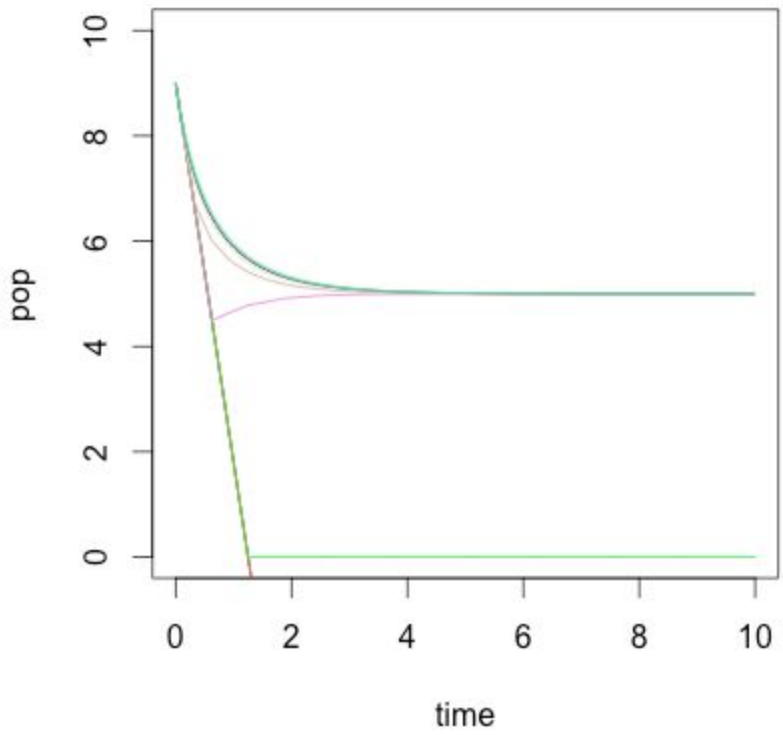
a. y(10) ≈ 4.9991



b.

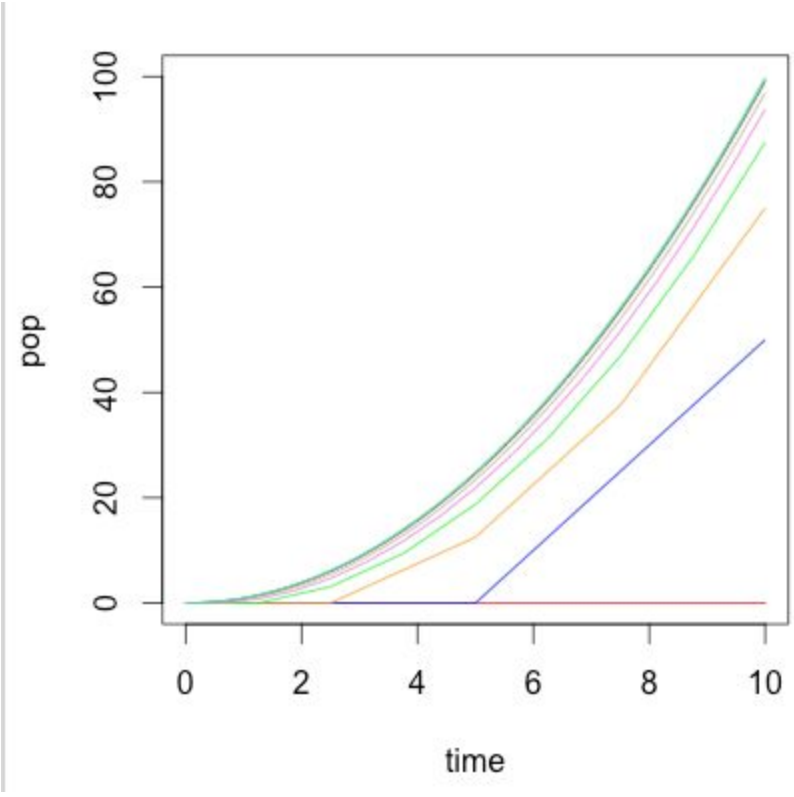
Dramatic variations as the program goes on. Also, the values end at 10, and have no valid y amounts beyond t = 10

c. null, based on the fact that the program will not calculate beyond t = 10



d.

Because the current value of y and y prime are so closed together that the variations are drastic

13. 

Y(2) ≈ 3.999023
—at least accurate to three decimal places

2.3

8.

Accurate to 8 Decimal Places: 1.31144249215325
Accurate to 12 Decimal Places: 1.31144249821546

9. ≈ 8.3365

11.

a. 9.77666652331342
b. At least 1,000
c. 9.77698465036925

17.

a $\sqrt{250}$ ≈ 15.811388300841896282
— 8 steps
15.811388300841896282 ^ 2 = 249.99999999999999

b. $\sqrt{1990.}$ ≈ 44.609416046390919064

— 9 steps

44.609416046390919064 ^ 2 = 1989.99999999999962