Question 1: Lifetime Value (LTV) at $9.99/month

Since the subscription price was 9.99 while the monthly retention rate is 99% and the monthly discount rate is 0.42%:

Discount factor= 1/(1+discount rate)=1/1.0042=0.9958

LTV=Subscription Price/ (1-monthly retention rate*discount factor)=9.99/(1-0.99*0.9958)=705.6

So, the lifetime value of a customer at $9.99/month is **$705.6**.

Question 2: LTV at $10.99/month

Since the subscription price is 10.99 and the monthly retention rate remain the same:

LTV= New Subscription Price/ (1-monthly retention rate*discount factor)=10.99/(1-0.99*0.9958)=776.2

So, the lifetime value of a customer at $9=10.99/month is **$776.2**.

Difference in LTV:

ΔLTV=LTV (new)−LTV (old)=776.2−705.6=70.6

So, the lifetime value of a customer increases by **$70.6**.

Question 3: Lifetime ROI of $2 Billion Incremental Investment

Incremental LTV for Current Customers

There are 54 million current US subscribers. The incremental LTV per customer is $70.6.

Incremental LTV (current customers)=70.6×54,000,000=3,812,400,000

Incremental LTV for Future Customers

Netflix acquires 0.33 million new customers monthly. The present value (PV) of these future customers is calculated as an infinite series:

PV (future customers)= Incremental LTV* monthly increase in customer * discount factor/(1-discount factor)= 70.6*0.33mil*0.9958/0.0042=70.6*78,241,428=5,523,844,857

Total Incremental LTV

Total Incremental LTV=Incremental LTV (current)+Incremental LTV (future)=
3,812,400,000+5,523,844,857=9,336,244,857

ROI

ROI =(Total Incremental LTV-Investment)/Investment=

(9,336,244,857−2,000,000,000)/2,000,000,000=7,336,244,857/2,000,000,000=366.81%