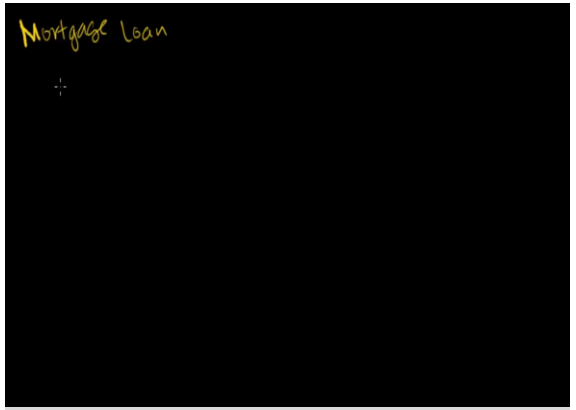
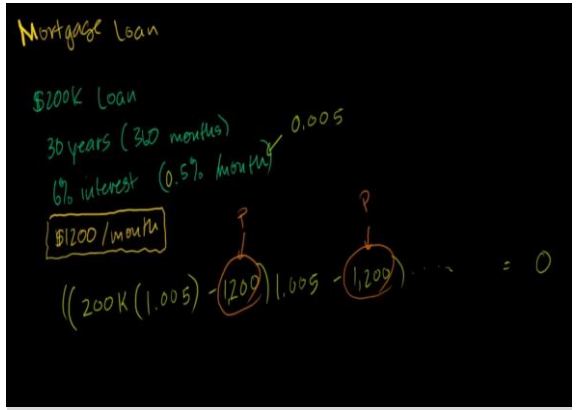
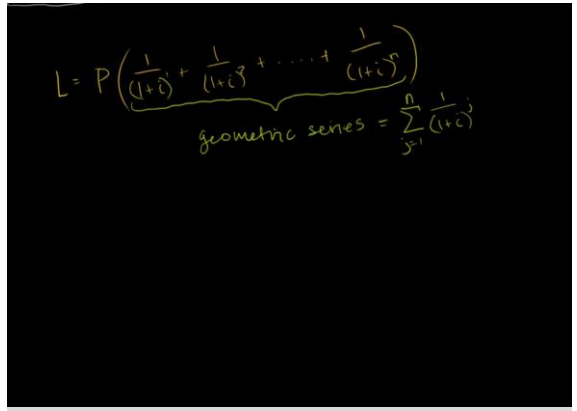


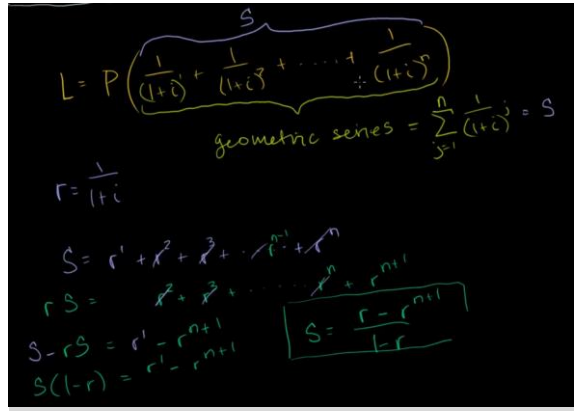
Captions:
You know, we take out these loans to buy houses. Let's say you take out a $200,000 mortgage loan.
…
And let's say you're paying 6% interest.



Captions:
And at the end, it's all going to be equal to 0. Because after you've paid your final payment, you're done paying off the house.



Captions:
It's equal to the sum of 1 over 1 plus i to the, well I'll use some other letter here, to the j from j is equal to 1. This is to the one power you could view this is to the first power to j is equal to n.



Captions:
Your sum is equal to r minus r to the n plus 1 over 1 minus r. That's what our sum is equal to, where we defined our r in this way. So now we can rewrite this whole crazy formula.