Problem of the Week
Problem B
Money for Music

The CEMCers are a new up-and-coming band. They only play music that they have written. Over the past year, they had to cancel a few concerts. They will try to recover some of the money lost by using the online radio station RipRap.

(a) On the streaming radio station RipRap, musicians are paid on average $0.0038 every time one of their songs is played. If The CEMCers usually make around $10 000 per concert, how many times will RipRap have to play one of their songs for The CEMCers to make an income equivalent to the income made in one concert?

(b) Riprap doesn’t play an artist’s songs non-stop, all day, every day. Suppose that RipRap plays one of The CEMCers songs three times every day, starting on January 1, 2022. How long will it take until RipRap has paid $10 000 to The CEMCers? (To take leap years into account, assume each year has 365.25 days.)