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loan_amount = input("Good Day. Welcome to ABC Money Lending Solutions where we
offer competitive interest rates for your loans. Could you please tell us the
initial amount you would like to borrow: ")
annual_rate = 0.14
principal = int(loan_amount)
starting_principal = principal
monthly_rate = annual_rate / 12.0

lower_bound = principal / 12.0
upper_bound = (principal * ((1.0 + monthly_rate) ** 12)) / 12.0
tolerance = 0.01
estimated_payment = (upper_bound + lower_bound) / 2.0
months_elapsed = 0

def compute_remaining_balance(months_elapsed, principal, estimated_payment,
monthly_rate):
    while months_elapsed < 12:
        remaining_debt = principal - estimated_payment
        principal = remaining_debt + (monthly_rate * remaining_debt)
        months_elapsed += 1
    return principal

while abs(principal) >= tolerance:
    principal = starting_principal
    months_elapsed = 0
    principal = compute_remaining_balance(months_elapsed, principal,
estimated_payment, monthly_rate)

    if principal > 0:
        lower_bound = estimated_payment
    else:
        upper_bound = estimated_payment

    estimated_payment = (upper_bound + lower_bound) / 2.0

estimated_payment = round(estimated_payment, 2)
total_repayment = (estimated_payment * 12) + principal
total_interest = round(total_repayment, 3)

print("The minimum payment you will be expected to pay monthly is R" +
str(estimated_payment) +
". The total interest gained on the principal amount is R" +
str(total_interest) + ".")

```