Taking Out a Mortgage Loan - Python Exercise

# Question:

Calculate the down payment and mortgage loan amount for a home worth $800,000 with a 20% upfront payment.

# Question Explanation (20 words):

We determine both the upfront down payment and remaining mortgage loan using the home price and 20% upfront payment rate.

# Answer (Code):

# Import numpy as np  
import numpy as np  
  
# Set the value of the home  
home\_value = 800000  
  
# Set the down payment percentage  
down\_payment\_percent = 0.20  
  
# Calculate the dollar value of the down payment  
down\_payment = home\_value \* down\_payment\_percent  
print("Initial Down Payment: " + str(down\_payment))  
  
# Calculate the value of the mortgage loan required after the down payment  
mortgage\_loan = home\_value - down\_payment  
print("Mortgage Loan: " + str(mortgage\_loan))

# Answer Explanation (20 words):

The down payment is 20% of $800,000, which is $160,000, leaving a mortgage loan of $640,000 to be financed.

