```
def capm(rf,beta,mrp):
  # this program computes CAPM returns
  return rf+beta*mrp


capm(.02,1.5,.05)
```

```
0.09500000000000001
```

```
def capm2(rf,beta,rm):
  # this program computes CAPM returns
  print("rf=",rf)
  print("beta=",beta)
  print("rm=",rm)
  mrp=rm-rf
  return round(rf+beta*mrp,3)


capm2(.02,1.5,.07)
```

```
rf= 0.02
beta= 1.5
rm= 0.07
0.095
```

```
#via chatGPT to retrieve 10Y Treas. rate
!pip install yfinance
import yfinance as yf
def CAPM3 (beta,mrp):
    ticker_symbol = "^TNX"
    treasury_data = yf.download(ticker_symbol, period="1d")
    rf = treasury_data['Close'].iloc[-1]/100
    print("rf=",rf)
    return rf+beta*mrp
CAPM3(2,.05)
```

```
Requirement already satisfied: yfinance in /usr/local/lib/python3.11/dist-pacl
Requirement already satisfied: pandas>=1.3.0 in /usr/local/lib/python3.11/dis
Requirement already satisfied: numpy>=1.16.5 in /usr/local/lib/python3.11/dis
Requirement already satisfied: requests>=2.31 in /usr/local/lib/python3.11/di
Requirement already satisfied: multitasking>=0.0.7 in /usr/local/lib/python3.
Requirement already satisfied: platformdirs>=2.0.0 in /usr/local/lib/python3.
Requirement already satisfied: pytz>=2022.5 in /usr/local/lib/python3.11/dist
Requirement already satisfied: frozendict>=2.3.4 in /usr/local/lib/python3.11,
Requirement already satisfied: peewee>=3.16.2 in /usr/local/lib/python3.11/di
Requirement already satisfied: beautifulsoup4>=4.11.1 in /usr/local/lib/pytho
Requirement already satisfied: soupsieve>1.2 in /usr/local/lib/python3.11/dis
Requirement already satisfied: typing-extensions>=4.0.0 in /usr/local/lib/pyt
Requirement already satisfied: python-dateutil>=2.8.2 in /usr/local/lib/pytho
Requirement already satisfied: tzdata>=2022.7 in /usr/local/lib/python3.11/di
```

```
Requirement already satisfied: tzdata>=2022.7 in /usr/local/lib/python3.11/dis
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/pytl
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.11/dist-
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.1
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.1
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.11/dist-pacl
[**********************100%**********************]  1 of 1 completedrf= Ticke
^TNX    0.04338
Name: 2025-03-26 00:00:00, dtype: float64
```

	2025-03-26
Ticker	
^TNX	0.14338

dtype: float64

Start coding or generate with AI.