

```

import numpy as np
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LinearRegression
from sklearn.tree import DecisionTreeRegressor
from sklearn.ensemble import RandomForestRegressor
from sklearn.metrics import mean_squared_error, r2_score
import matplotlib.pyplot as plt

np.random.seed(42)
X = np.random.rand(100, 1) * 10
y = 2 * X.squeeze() + 1 + np.random.randn(100) * 2

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

# Linear Regression
linear_regressor = LinearRegression()
linear_regressor.fit(X_train, y_train)
y_pred_linear = linear_regressor.predict(X_test)

# Decision Tree Regression
tree_regressor = DecisionTreeRegressor(random_state=42)
tree_regressor.fit(X_train, y_train)
y_pred_tree = tree_regressor.predict(X_test)

# Random Forest Regression
forest_regressor = RandomForestRegressor(n_estimators=100, random_state=42)
forest_regressor.fit(X_train, y_train)
y_pred_forest = forest_regressor.predict(X_test)

def evaluate_model(y_true, y_pred, model_name):
    mse = mean_squared_error(y_true, y_pred)
    r2 = r2_score(y_true, y_pred)
    print(f"{model_name} - Mean Squared Error: {mse:.2f}, R^2 Score: {r2:.2f}")

evaluate_model(y_test, y_pred_linear, "Linear Regression")
evaluate_model(y_test, y_pred_tree, "Decision Tree Regression")
evaluate_model(y_test, y_pred_forest, "Random Forest Regression")

```

```

Linear Regression - Mean Squared Error: 2.61, R^2 Score: 0.93
Decision Tree Regression - Mean Squared Error: 3.63, R^2 Score: 0.90
Random Forest Regression - Mean Squared Error: 3.02, R^2 Score: 0.92

```