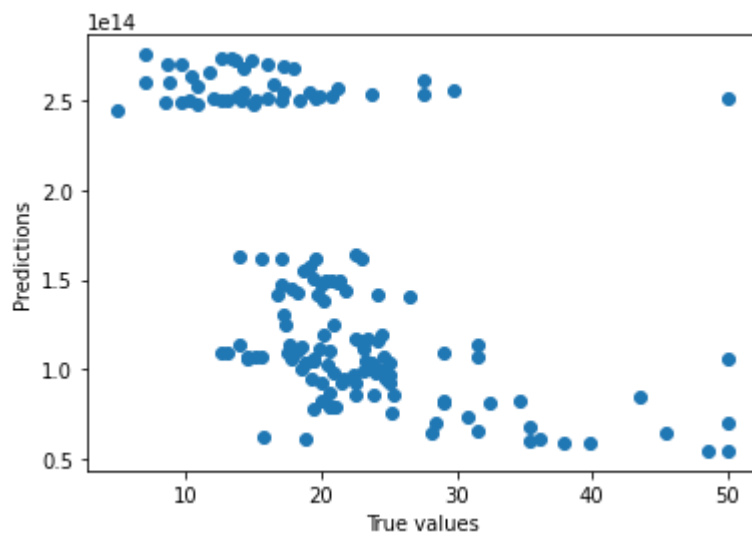In [1]:

```
#STICHASTIC GRADIENT DECSENT FOR LOGOSTIC REGRESSION
```

In [5]:

```python
from sklearn.datasets import load_boston
from sklearn.model_selection import train_test_split
from sklearn.linear_model import SGDRegressor
from sklearn.metrics import mean_squared_error
import matplotlib.pyplot as plt
# Load the housing dataset
housing_data = load_boston()
X = housing_data.data
y = housing_data.target
# Split the data into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.3, random_state=42
# Train the SGD classifier
sgdr = SGDRegressor(max_iter=10000, tol=1e-3)
sgdr.fit(X_train, y_train)
# Predict the labels of the test data
y_pred = sgdr.predict(X_test)
# Print the mean squared error
print("Mean Squared Error:", mean_squared_error(y_test, y_pred))
# Plot the predicted values against the actual values
plt.scatter(y_test, y_pred)
plt.xlabel("True values")
plt.ylabel("Predictions")
plt.show()
```

Mean Squared Error: 2.7940754028042226e+28

In [ ]: