```
from sklearn.neighbors import KNeighborsClassifier
from sklearn.metrics import confusion_matrix, ConfusionMatrixDisplay
import matplotlib.pyplot as plt
```

```
X = [
    [150, 50],
    [160, 60],
    [170, 70],
    [180, 80],
    [190, 90],
    [200, 100]
]
```

```
y = [0,0,0,1,1,1]
```

```
knn = KNeighborsClassifier(n_neighbors=3)
knn.fit(X,y)
```

```
KNeighborsClassifier
KNeighborsClassifier(n_neighbors=3)
```

```
X_test = [
    [155, 55],
    [185, 82]
]
y_test = [0,1]
```

```
y_pred = knn.predict(X_test)
print("Predictions:", y_pred)
```

```
Predictions: [0 1]
```

```
cm = confusion_matrix(y_test, y_pred)
disp = ConfusionMatrixDisplay(confusion_matrix=cm, display_labels = ["Class A", "Class B"])
disp.plot()
plt.show()
```