

Getting Started with Machine Learning





Dataset

$X = -1, 0, 1, 2, 3, 4$

$Y = -3, -1, 1, 3, 5, 7$



```
import tensorflow as tf
import numpy as np

l0 = tf.keras.layers.Dense(units=1, input_shape=[1])
model = tf.keras.Sequential([l0])
model.compile(optimizer='sgd', loss='mean_squared_error')

xs = np.array([-1.0, 0.0, 1.0, 2.0, 3.0, 4.0], dtype=float)
ys = np.array([-3.0, -1.0, 1.0, 3.0, 5.0, 7.0], dtype=float)

model.fit(xs, ys, epochs=500)
print(model.predict([10.0]))

print('Here is what I learned: {}'.format(l0.get_weights()))
```