In [13]:
```python
import numpy as np
# Importing standard Qiskit libraries
from qiskit import QuantumCircuit, transpile, Aer, IBMQ, assemble
from qiskit.tools.jupyter import *
from qiskit.visualization import *
from ibm_quantum_widgets import *
import math

# Loading your IBM Quantum account(s)
provider = IBMQ.load_account()
sim = Aer.get_backend('aer_simulator')
```

ibmqfactory.load_account:WARNING:2021-07-10 06:32:10,962: Credentials
are already in use. The existing account in the session will be repla
ced.

In [16]:
```python
from math import pi, sqrt
qc = QuantumCircuit(1)
qc.ry(3 * math.pi/4, 0)
qc.measure_all()
#qc.save_statevector()    # Tell simulator to save statevector
#qobj = assemble(qc)      # Create a Qobj from the circuit for the simul
ator to run
#result = sim.run(qobj).result() # Do the simulation and return the res
ult c
qobj = assemble(qc)
result = sim.run(qobj).result()
counts = result.get_counts()
plot_histogram(counts)
```
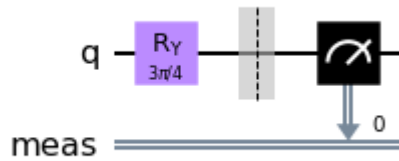
Out[16]:
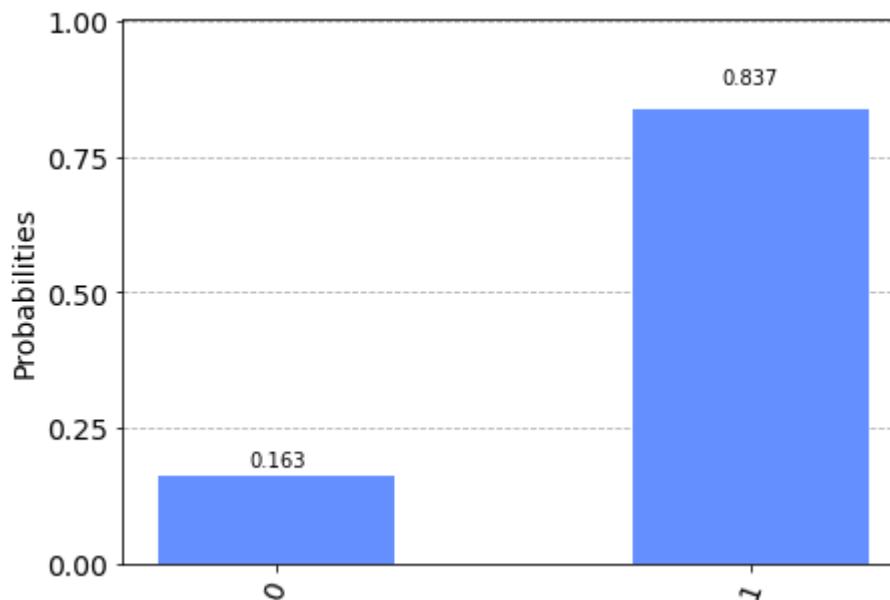
In [17]:
```
#out_state = result.get_statevector()
#print(out_state) # Display the output state vector

qc.draw()
```

Out[17]:

In [ ]:
```
# Above solution is run by Bhadale IT for given problem below, answer i
s 0.1464

#Given this code fragment, what is the probability that a measurement w
ould result in |0> ?
#qc = QuantumCircuit(1)
#qc.ry(3 * math.pi/4, 0)
#A. 0.8536
#B. 0.5
#C. 0.1464
#D. 1.0
```