In [15]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

In [16]:
```
dataset = pd.read_csv('Position_Salaries.csv')
```

In [17]:
```
dataset
```

Out[17]:

	Position	Level	Salary
0	Business Analyst	1	45000
1	Junior Consultant	2	50000
2	Senior Consultant	3	60000
3	Manager	4	80000
4	Country Manager	5	110000
5	Region Manager	6	150000
6	Partner	7	200000
7	Senior Partner	8	300000
8	C-level	9	500000
9	CEO	10	1000000

In [20]:
```
X = dataset.iloc[:,1:2].values
y = dataset.iloc[:,2].values
```

In [21]:
```
X
```

Out[21]:
```
array([[ 1],
       [ 2],
       [ 3],
       [ 4],
       [ 5],
       [ 6],
       [ 7],
       [ 8],
       [ 9],
       [10]], dtype=int64)
```

In [22]:
```
from sklearn.tree import DecisionTreeRegressor
```

In [23]:
```
regressor = DecisionTreeRegressor(random_state = 0)
```

In [25]:
```
regressor.fit(X,y)
```

Out[25]:
```
DecisionTreeRegressor(criterion='mse', max_depth=None, max_features=None,
                      max_leaf_nodes=None, min_impurity_decrease=0.0,
                      min_impurity_split=None, min_samples_leaf=1,
                      min_samples_split=2, min_weight_fraction_leaf=0.0,
                      presort=False, random_state=0, splitter='best')
```

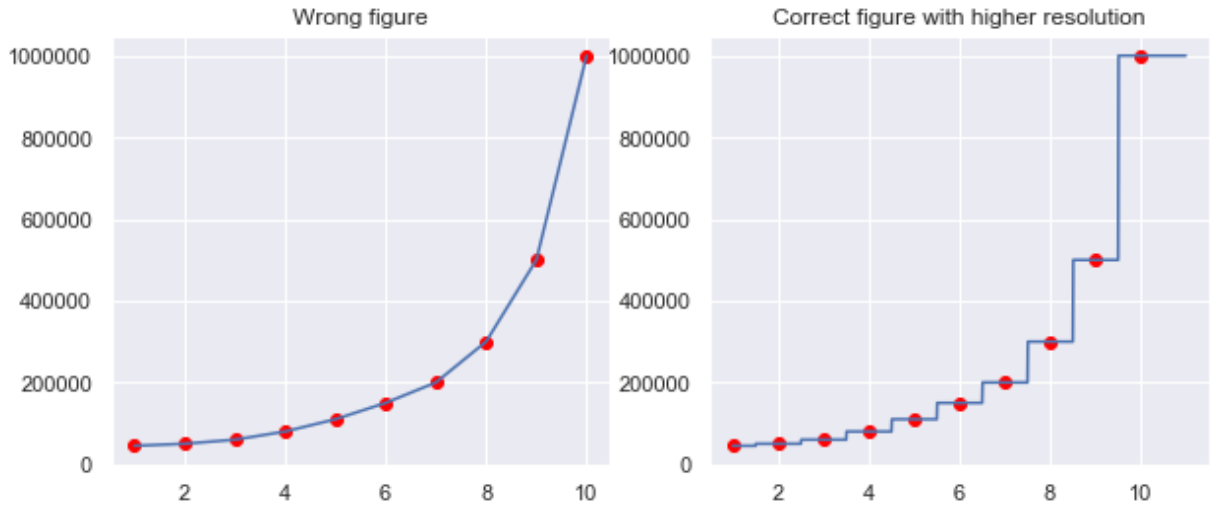
In [30]:
```
y_pred = regressor.predict( np.array([[6.5]]))
y_pred[0]
```

Out[30]:
```
150000.0
```

In [43]:
```
plt.figure(figsize = (10,4))
sns.set(style = 'darkgrid')

plt.subplot(1,2,1)
plt.scatter(X,y, color = 'red')
plt.plot(X, regressor.predict(X))
plt.title('Wrong figure')

plt.subplot(1,2,2)
plt.scatter(X,y, color = 'red')
plt.plot(np.arange(1,11,0.01).reshape(-1,1), regressor.predict(np.arange(1,11,0.0
plt.title('Correct figure with higher resolution')
plt.show()
```



Trap!

In the second figure, the salary for the position range from 5.5 to 6.5 is 150k.

We got this improvement using the higher resolution graph.

The End.