

Machine Design Homework 1

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```
[ ]: # Notebook Preamble
import sympy as sp
import numpy as np
import matplotlib.pyplot as plt

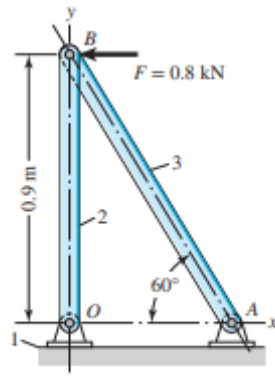
plt.style.use('maroon_ipynb.mplstyle')
```

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1 Problem 3

1.1 Given



Problem 3-3

1.2 Find

Sketch a free-body diagram of each element in the figure above. Compute the magnitude and direction of each force using an algebraic or vector method.

1.3 Solution