### ASSIGNMENT-6

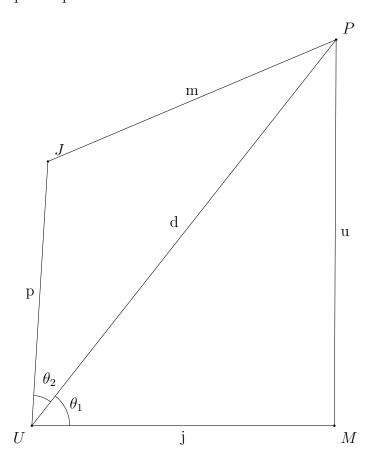
SENANI SADHU

January 22, 2021

# 1 Draw JUMP with JU = 3.5, UM = 4, MP = 5, PJ = 4.5 and PU = 6.5

#### 1.1 Solution:-

Given, JU = 3.5, UM = 4, MP = 5, PJ = 4.5 and PU = 6.5 Therefore required quadrilateral:



#### 1.2 Output of Python code:-

[2.63461538 2.30408372] [-0.08687259 3.49892171] [0 0] [4 0] [4.15625 4.997

0.25118675998966 41.17108289636855

Figure 1: Fig generated using python

## 2 DRAW rhombus BEND such that BN = 5.6, DE = 6.5.

#### 2.1 Solution:-

Given, BN=5.6 DE=6.5 Let BN and ED intersect each other at O. Now, diagonals of rhombus bisect each other at right angles.

Thus, we have  $ON = \frac{BN}{2} = \frac{5.6}{2} = 2.8$ 

$$OE = \frac{ED}{2} = \frac{6.5}{2} = 3.25$$

Since EON is a right angled triangle, by pythagoras theorem, we have  $EN^2 = OE^2 + ON^2$ 

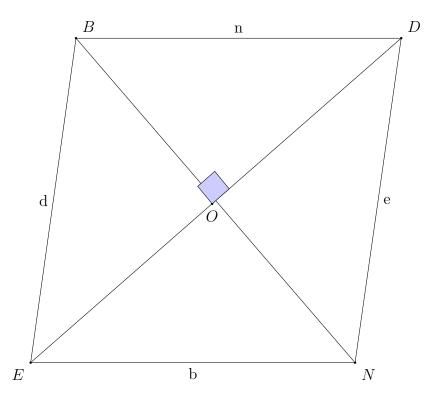
 $EN^2 = 10.56 + 7.84$ 

EN = 4.29

Since each side of rhombus are equal Therefore,

EN=ND=BD=BE=4.29

Therefore required quadrilateral:



### 2.2 Output of Python Code:-

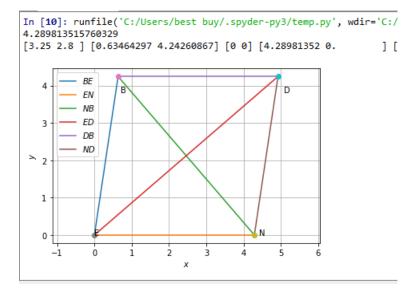


Figure 2: Fig generated using python