

# ASSIGNMENT-6

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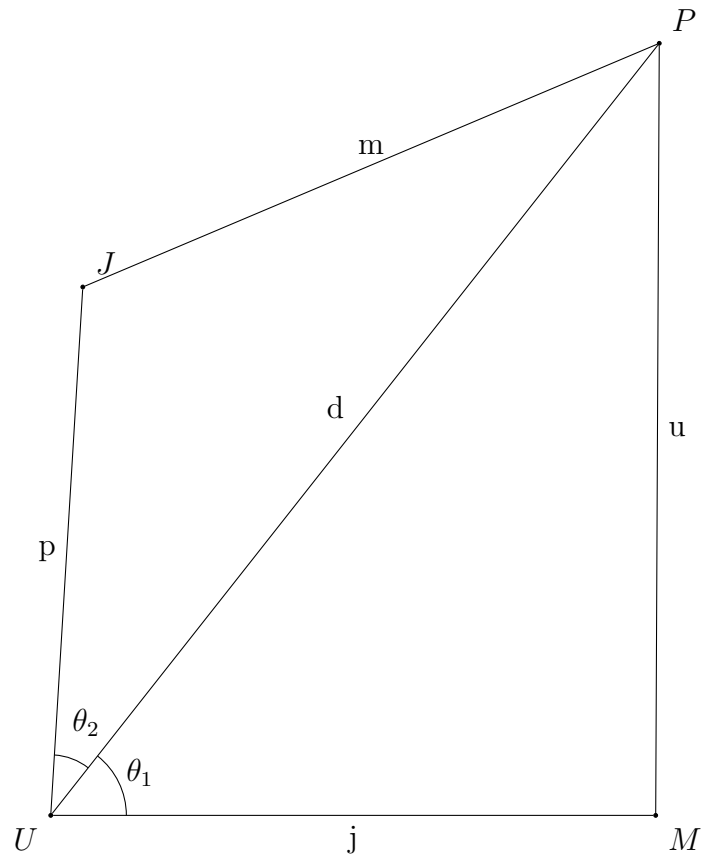
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**1 Draw JUMP with  $JU = 3.5$ ,  $UM = 4$ ,  $MP = 5$ ,  $PJ = 4.5$  and  $PU = 6.5$**

**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:-**

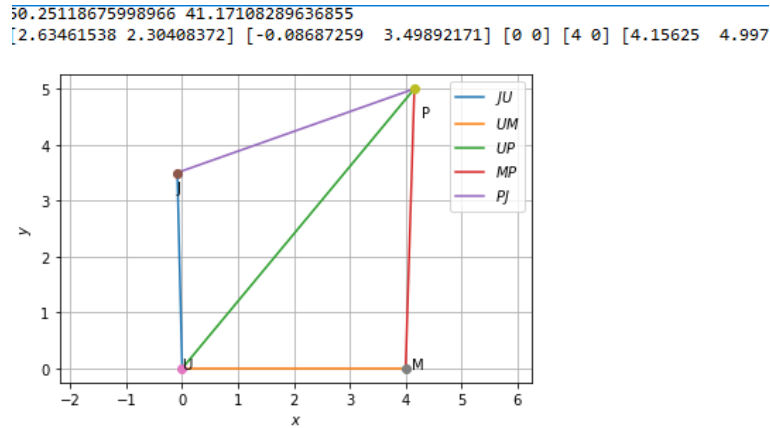


Figure 1: Fig generated using python

## 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

$$EN^2 = OE^2 + ON^2$$

$$EN^2 = 10.56 + 7.84$$

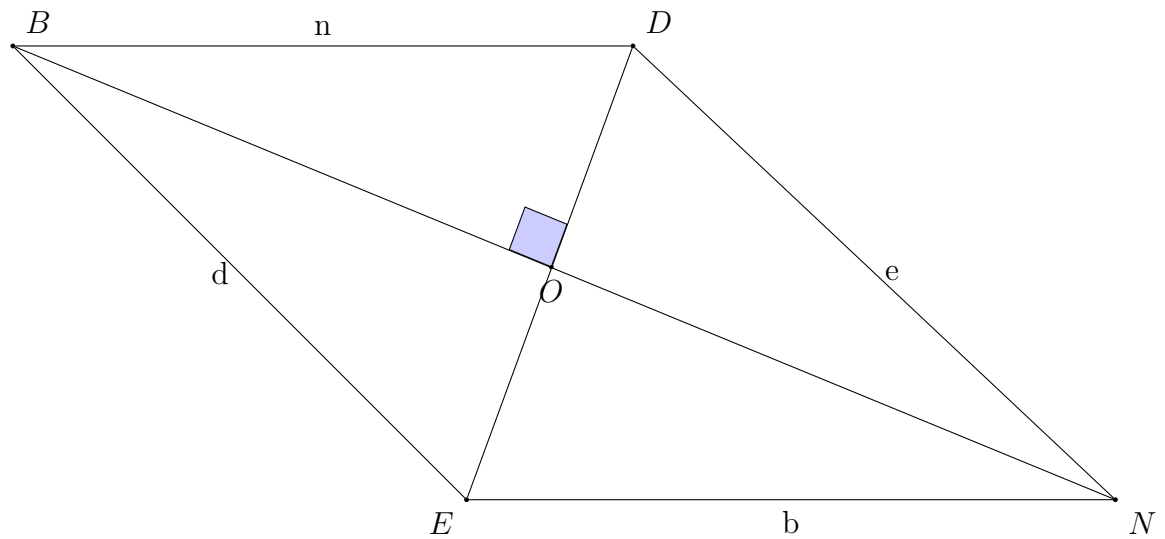
$$EN = 4.29$$

Since each side of rhombus are equal

Therefore,

$$EN = ND = BD = BE = 4.29$$

Therefore required quadrilateral:



## 2.2 Output of Python Code:-

```

In [5]: from matplotlib.pyplot import *
[3.25  7.94024559] [-6.11739879  6.01559906] [0 0] [8.57962703 0.]

```

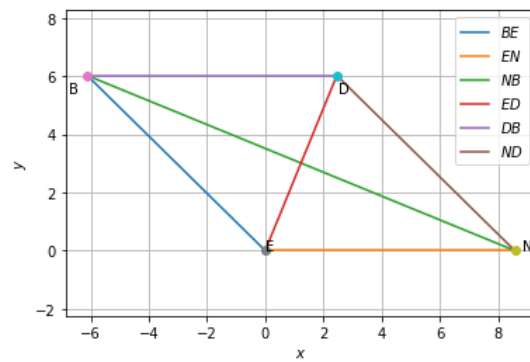


Figure 2: Fig generated using python