## **HackerRank**

# Class 2 - Find the Torsional Angle

You are given four points A, B, C and D in a 3-dimensional Cartesian coordinate system. You are required to print the angle between the plane made by the points A, B, C and B, C, D in degrees(**not radians**). Let the angle be PHI.

$$Cos(PHI) = (X,Y)/|X||Y|$$
 where  $X = AB \times BC$  and  $Y = BC \times CD$ .

Here, X.Y means the dot product of X and Y, and  $AB \times BC$  means the cross product of vectors AB and BC. Also, AB = B - A.

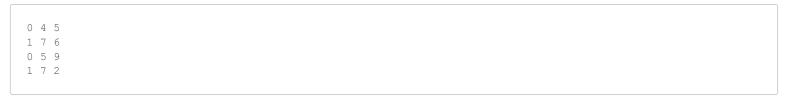
### **Input Format**

One line of input containing the space separated floating number values of the X,Y and Z coordinates of a point.

#### **Output Format**

Output the angle correct up to two decimal places.

#### **Sample Input**



#### **Sample Output**

8.19