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import numpy as np

from numpy.linalg import norm

from scipy.spatial.distance import cdist

 a = np.array([4,-2])
 b = np.array([-3, 5])

 c = a - b

 normC = norm(c, ord=2)
 normA = norm(a, ord=2)
 normB = norm(b, ord=2)
 normA_B = norm((a-b), ord=2)
 metricA_B = cdist(a[np.newaxis, :], b[np.newaxis, :],
metric='euclidean')

 dotAB = np.dot(a,b)

 cos_angle = dotAB / (normA * normB)
 angle = np.arccos(cos_angle)

print(c)

[ 7 -7]

print(normC)

9.899494936611665

print(normA)

4.47213595499958

print(normB)

5.830951894845301

print(normA_B)

9.899494936611665

print(metricA_B)

[[9.89949494]]

print(dotAB)

-22

print(cos_angle)

-0.8436614877321075
```

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print(angle)
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2.5748634360662868
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