EE381 HW 4

(b)

(c)

(d)

Lewis Collum

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3.5

All work done in Python. For vector notation, I use [a,b,c] instead of $\hat{x}a+\hat{y}b+\hat{z}c$.

(a)

|A| = 3.742, $\hat{\mathbf{a}} = [0.267, 0.535, -0.802]$

(b)

 $comp_C B = -1.789$

(c)

 $\theta_{AC} = 85.5^{\circ}$

(d)

 $\mathbf{A} \times \mathbf{C} = [-2, 4, 2]$

(e)

 $\mathbf{A} \cdot (\mathbf{B} \times \mathbf{C}) = 20$

(f)

 $\mathbf{A} \times (\mathbf{B} \times \mathbf{C}) = [32, -52, -24]$

(g)

 $\hat{\mathbf{x}} \times \mathbf{B} = [0, 0, -4]$

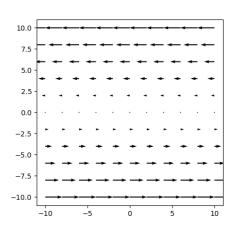
(h)

 $(\mathbf{A} \times \hat{\mathbf{y}}) \cdot \hat{\mathbf{z}} = 1$

3.14

3.20

(a)



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