Page 1

1 | Class Problems

1.1 | (1) and (2)

(2): If the xy-angle, z-angle, and magnitude of a point in 3D space are represented by the variables θ, ϕ, l , then the vector representation of the point will be equal to $<\sin\phi\cdot\cos\theta, \sin\phi\cos\theta, \cos\phi>\cdot l$. Therefore, the answer to (1) is $<\frac{\pi}{4},\frac{\pi}{4},\frac{\sqrt{3}}{2}>$.

2 | Vectors

2.1 | (2)

Magnitude: $\sqrt{10}$

Direction: $<\frac{3}{\sqrt{10}},-\frac{1}{\sqrt{10}}>$

2.2 | (5)

Magnitude: $\sqrt{21}$

Direction: $<\frac{1}{\sqrt{21}},-\frac{2}{\sqrt{21}},\frac{4}{\sqrt{21}}>$

2.3 | (9)

Magnitude: $\frac{\sqrt{5}}{2}$

Direction: $<-\sqrt{\frac{3}{5}},\sqrt{\frac{2}{5}}>$

2.4 | (30)

See Drawings Section

2.5 | Drawings

KBdPS4img.jpg

• 2021-2022