CHAPTER 2

1. Vector **A** has a magnitude of 22.3 and is at an angle of 162 degrees from the x axis, and vector **B** has a magnitude of 14.5 and makes an angle of 72 degrees with the x axis.

a. Calculate the x and y components of both vectors.
b. Calculate **A**+**B** (magnitude and direction)
c. Calculate **A**-**B** (magnitude and direction)
d. Calculate **A**·**B** (dot product)
e. Calculate **AxB** (component notation)

2. Vector **A** has a magnitude of 43.7 and is at an angle of 215 degrees from the x axis, and vector **B** has a magnitude of 24.3 and makes an angle of 134 degrees with the x axis.

a. Calculate the x and y components of both vectors.
b. Calculate **A**+**B** (magnitude and direction)
c. Calculate **A**-**B** (magnitude and direction)
d. Calculate **A**·**B** (dot product)
e. Calculate **AxB** (magnitude and direction)

3. Vector **A** = 7**i** +16**j.** Vector **B** = 4**i** - 12**j**.

a. Calculate the magnitude and direction of **A** + **B**.
b. Calculate the magnitude and direction of **A** - **B**.
c. Calculate **A**·**B** (dot product)