## **Vectors**

## 1 Problem I

A vector  $\vec{\mathbf{F}}$  has a magnitude of 2 and makes an angle of 30° with the x-axis (with positive rotation counterclockwise).

- 1. Draw  $\vec{\mathbf{F}}$ .
- 2. Write  $\vec{\mathbf{F}}$  in the form  $F_x \hat{\imath} + F_y \hat{\jmath}$ .



## 2 Problem II

Given  $\vec{\mathbf{F}} = 3\hat{\imath} - 4\hat{\jmath}$ , find

- 1. Draw  $\vec{\mathbf{F}}$ .
- 2. Compute F.
- 3. The angle  $\vec{\mathbf{F}}$  makes with respect to the x-axis (with positive rotation counterclockwise).

