Question 1:
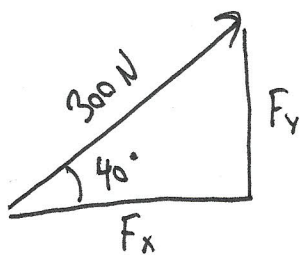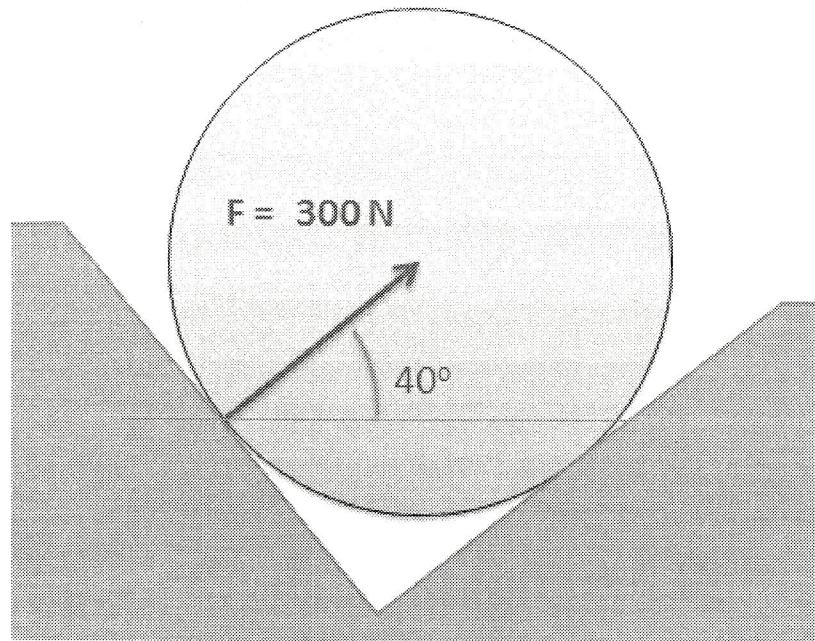
Determine the x and y components of the vector shown below.

$$F_x = 300 \cos(40) = 229.8 \, N$$

$$F_y = 300 \sin(40) = 192.8 \, N$$

$$F = [229.8, \, 192.8] \, N$$