10. We use coordinates with $+x$ rightward and $+y$ upward, with the usual conventions for measuring the angles (so that the initial angle becomes $180+35 = 215^\circ$). Using SI units and magnitude-angle notation (efficient to work with when using a vector capable calculator), the change in momentum is

$$\vec{p}_f - \vec{p}_i = (3.0 \angle 90^\circ) - (3.6 \angle 215^\circ) = (5.9 \angle 60^\circ) \ .$$

This equals the impulse delivered to the ball (by the bat). Then, Eq. 10-8 leads to

$$F_{\text{avg}}\Delta t = 5.9 \implies F_{\text{avg}} = \frac{5.9}{2.0 \times 10^{-3}} \approx 2.9 \times 10^3 \text{ N} \ .$$

We note that this force is very much larger than the weight of the ball, which justifies our (implicit) assumption that gravity played no significant role in the collision.