4-10. A particle strikes the smooth ground with a normal random velocity $v_1 \sim N(20, 2^2)$ m/s. If the coefficient of restitution is $e = 0.6$, determine the distributions of the x and y components of the velocity of the particle after collision.

Solutions: $(v_2)_y \sim N(10.39, 1.04^2)$ m/s, $(v_2)_x \sim N(10, 1^2)$ m/s.