2-23. Two balls are moving toward each other. Before a direct collision, ball A has a normally distributed velocity $(v_A)_1 \sim N(5, 0.5^2)$ m/s, and the velocity of ball B is $(v_B)_1 \sim N(6, 0.6^2)$ m/s. The coefficient of restitution between the balls is $e = 0.6$. If the masses of the two balls are $m_A = 10$ kg and $m_B = 8$ kg, respectively. Determine the velocity distributions of the two balls just after the collision. Assume $(v_A)_1$ and $(v_B)_1$ are independent.

Solutions: $(v_A)_2 \sim N(2.82, 0.45^2)$ m/s, $\leftarrow$; $(v_B)_2 \sim N(3.78, 0.45^2)$ m/s, $\rightarrow$.