1.5 Equation 1.38 gives us:

$$var[f] = E[(f(x) - E[f(x)])^2]$$

$$= E\left[f(x)^2 + E[f(x)]^2 - 2f(x)E[f(x)]\right]$$

$$= E[f(x)^2] + E[E[f(x)]^2] - E[2f(x)E[f(x)]]$$

$$= E[f(x)^2] + E[f(x)]^2 - 2E[f(x)]E[f(x)]$$

$$= E[f(x)^2] + E[f(x)]^2 - 2E[f(x)]^2$$

$$= E[f(x)^2] - E[f(x)]^2$$

which is the result in 1.39 that we wanted.