

Ex 7.4

$$E[X] = 2 \quad \text{Var}(X) = 4$$

$$E(3-2X) = ? \quad \text{Var}(3-2X) = ?$$

$$\begin{aligned} E(3-2X) &= 3 - (2E[X]) \\ &= 3 - 2(2) \\ &= -1 \end{aligned}$$

$$\boxed{E(3-2X) = -1}$$

$$\begin{aligned} \text{Var}(3-2X) &= 4\text{Var}(X) \\ &= 4(4) \\ &= 16 \end{aligned}$$

$$\boxed{\text{Var}(3-2X) = 16}$$