

Sec 5.5 , #5

Expected Value  $E(X) = 2.0 = \mu$

*given*

$X_i$	$P_i$	$X_i - \mu$	$(X_i - \mu)^2$	$P_i (X_i - \mu)^2$
0	0.4	$0 - 2 = -2$	$(-2)^2 = 4$	$0.4(4) = 1.6$
2	0.3	$2 - 2 = 0$	0	0
4	0.2	$4 - 2 = 2$	$(2)^2 = 4$	$0.2(4) = 0.8$
6	0.1	$6 - 2 = 4$	$(4)^2 = 16$	$0.1(16) = 1.6$
Variance $\sigma^2$				4

$$\sigma = \text{Standard Deviation} = \sqrt{4} = 2$$