

Y	0	1	2	3
P(y)	.2	.6	.4	.2

$$E(Y) = (0 \cdot .2) + (1 \cdot .6) + (2 \cdot .4) + (3 \cdot .2) = 2$$

$$E(Y^2) = 0 + (1 \cdot .6) + (2^2 \cdot .4) + (3^2 \cdot .2) = 4$$

$$E(Y^3) = .6 + (2^3 \cdot .4) + (3^3 \cdot .2) = 9.2$$

$$E(Y^4) = .6 + (2^4 \cdot .4) + (3^4 \cdot .2) = 23.2$$

$$E(Y^2 - M^2) = 4 - 2^2 = 0$$

$$E(Y^3 - M^3) = 9.2 - 3(2^3) + (2 \cdot 2^2) = 1.2$$

$$E(Y^4 - M^4) = 23.2 - 4(2^4 \cdot 9.2) + 6(2^2)^2 - 3(9.2^2) = -2167$$