

#7)

$$E(X) = [\text{each possible outcome} \times \text{Prob of occurring}]$$

$$(1 \times 0.05) + (2 \times 0.15) + (4 \times 0.30) + (8 \times 0.35) + (16 \times 0.15) = 6.75$$

b) $V(X)$

$$(1 - 6.75)^2 * 0.05 + (2 - 6.75)^2 * 0.15 + (4 - 6.75)^2 * 0.30 + (8 - 6.75)^2 * 0.35 + (16 - 6.75)^2 * 0.15$$

$$33.0625 * 0.05 = 1.653125$$

$$22.5625 * 0.15 = 3.384375$$

$$= 2.26875$$

$$= 0.546875$$

$$= 12.834375$$

$$\#8) E(Y) =$$

$$(0 \times .60) + (1 \times .25) + (2 \times .10) + (3 \times .05)$$

#6) Solve for c

$$a) c + 2c + 3c + 4c = 1$$

$$\therefore c = 1/10$$

$$b) P(4) = 4/10$$

$$c) P(1 \cup 2) = P(1) + P(2)$$

8b) ^{same as A} square each $1^2, 2^2$
+ multiply by 126

$$\textcircled{1} c1 + c2 + c3 + c4 = 1$$

$$a) 10c = 1$$

$$c = 1/10$$

$$b) P(4) = 4/10$$

$$P(1) - P(2)$$