Quiz 2   Victor Kim   1954607

X, Y

$P(Y=0|x=1) = P(Y=0) P(x=1|Y=0)$

$0.6 = 0.3 P(x=1|Y=0)$

$P(x=1|Y=0) = 2$

$= P(x=1) P(Y=0|x=1)$

$2 = P(x=1) \ 0.2$

$P(x=1) = 1-0.6 = 0.4$ 0.1

$P(Y=2|x=1) = P(Y=2) P(x=1|Y=2)$

$V(w) = 8 - 2^2 V(x) + 1^2 V(Y)$ $P(Y=2) = 1-0.3-0.4$

$V(x) = 0 \cdot 0.6 + 1 \cdot 0.4 = 0.4$ $= 0.3$ -0.1

$V(Y) = 0 \cdot 0.3 + 1 \cdot 0.4 + 2 \cdot 0.3 = 1$

$V(w) = 8 - 4(0.4) + 1$

$\boxed{= 7.4}$

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