1. X and Y are discrete variables whose joint distribution $P[X = x, Y = y] = p(x, y)$ is given by

$$p(1,1) = 0.12 \quad p(2,1) = 0.06 \quad p(3,1) = 0.12$$
$$p(1,2) = 0.00 \quad p(2,2) = 0.12 \quad p(3,2) = 0.08$$
$$p(1,3) = 0.20 \quad p(2,3) = 0.05 \quad p(3,3) = 0.15$$
$$p(1,4) = 0.05 \quad p(2,4) = 0.02 \quad p(3,4) = 0.03$$

Find $P[X > Y]$

A. 0.26   B. 0.30   C. 0.32   D. 0.35   E. 0.39

2. X and Y are discrete variables whose joint distribution $P[X = x, Y = y] = p(x, y)$ is given by

$$p(0, 1) = 0.2 \quad p(1, 1) = 0.1$$
$$p(1, 2) = 0.3 \quad p(2, 2) = 0.1$$
$$p(2, 3) = 0.1 \quad p(3, 3) = 0.2$$

Find the coefficient of variation of Y.

A. 0.30   B. 0.39   C. 0.60   D. 2.58   E. 3.33