

Question #163

Answer: D

$$e_x = e_y = \sum_{k=1}^{\infty} {}_k p_x = 0.95 + 0.95^2 + \dots$$
$$= \frac{0.95}{1-0.95} = 19$$

$$e_{xy} = p_{xy} + {}_2 p_{xy} + \dots$$
$$= 1.02(0.95)(0.95) + 1.02(0.95)^2(0.95)^2 + \dots$$
$$= 1.02[0.95^2 + 0.95^4 + \dots] = \frac{1.02(0.95)^2}{1-0.95^2} = 9.44152$$

$$e_{\overline{xy}} = e_x + e_y - e_{xy} = 28.56$$