

You observe the following losses:

100

Loss amount	Number of losses
0	12
100	38
200	26
300	12
400	9
500	1
600	2

Calculate the empirical coefficient of variation for the loss data.

$$= \frac{\sigma}{\mu}$$

A. 0.01

B. 0.73

C. 1.37

D. 10.58

E. 50.79

$$\mu = 0 \cdot \frac{12}{100} + 100 \cdot \frac{38}{100} + 200 \cdot \frac{26}{100} + \dots$$

$$= 0 + 38 + 2 \cdot 26 + 3 \cdot 12 + 4 \cdot 9 + 5 \cdot 1 + 6 \cdot 2 = 179$$

$$\overline{E X^2} = 0 \cdot \frac{12}{100} + 100^2 \cdot \frac{38}{100} + \dots$$

$$= 100 \cdot 38 + 400 \cdot 26 + 900 \cdot 12 + (600 \cdot 9 + 2500 \cdot 1 + 3600 \cdot 2)$$

$$= 49,100 ; \quad SD = \sqrt{49,100 - 179} = 130,6$$