EASY INTERMEDIATE HARD

CFA® SAMPLE QUESTION – LEVEL I

Quantitative Methods

Q: Based on historical default records, of all the bonds currently rated BBB, 22% will default over an investor's horizon.

The expected number of defaults and the variance of the number of defaults in a randomly selected 50-bond portfolio over the investor's horizon is:

CORRECT ANSWER:

	Expected Defaults	Variance
ⓑ	**11**	**8.58**

We can treat the number of defaults as a binominal random variable (i.e. default or not default)
So Expected number of defaults E(x) = 50* 0.22 = 11
And the Variance: Var(x) = 50 * 0.22 (1-0.22) = 8.58

$$\mu_X = np$$
$$\sigma_X^2 = np(1-p)$$

CFA Society Hong Kong
Candidate Services

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