Risk Management for Individuals and Enterprises Version 2 2nd edition Baranoff Test Bank

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Chapter 2—Measuring Risk

TRUE/FALSE

1. Severity is the number of times the event is expected to occur in a specified period of time.
ANS: F DIF: Easy

2. Pascal and Fermat were the first to model the exhibited regularity of chance or uncertain events and apply it to solve a practical problem.
ANS: T DIF: Easy

3. The use of frequency and severity data is very important to both insurers and firm managers concerned with judging the risk of various endeavors.
ANS: T DIF: Easy

4. In repeated games of chance involving uncertainty, relative frequencies are both stable over time and individuals can calculate them by simply counting the total number of equally likely possible outcomes divided by the number of ways that the outcome can occur.
ANS: F DIF: Moderate

5. The notions of "equally likely outcomes" include situations in which the number of possible outcomes is infinite.
ANS: F DIF: Easy

6. The normal distribution or bell-shaped curve from statistics provides an example of a continuous probability distribution curve.
ANS: T DIF: Easy

7. In a normal distribution, the probability of any range of profitability values is calculated by finding the standard deviation under the curve in between the desired range of profitability values.
ANS: F DIF: Easy

8. The reason that uncertainty is unsettling is not the outcomes of uncertainty but the uncertainty itself.
ANS: F DIF: Easy

9. Fair value is also referred to as "expected value."
ANS: T DIF: Easy

10. Expected value is calculated by multiplying each probability or relative frequency by its respective gain or loss.
ANS: T DIF: Easy

11. In uncertain economic situations involving possible financial gains or losses, the mean value represents the expected return from an endeavor and expresses the risk involved in the uncertain scenario.
ANS: F DIF: Easy

12. The more an observation deviates from what we expected, the more risky we deem the outcome to be.
ANS: T **DIF: Easy**

13. Standard deviation is the square of variance.
ANS: F **DIF: Moderate**

14. Larger standard deviations represent greater risk, everything else being the same.
ANS: T **DIF: Easy**

15. Semivariance, as a measure of risk, gives the same attention to both positive and negative deviations from the mean or expected value.
ANS: F **DIF: Easy**

16. Market risk is the change in market value of bank assets and liabilities resulting from changing market conditions.
ANS: T **DIF: Easy**

17. The calculation and interpretation of VaR and Maximal Probable Annual Loss (MPAL) is the same.
ANS: T **DIF: Easy**

18. VaR models provide an accurate measure of the losses that occur in extreme events.
ANS: F **DIF: Moderate**

19. The asset-specific idiosyncratic risk is generally ignored when making decisions concerning the additional amount of risk involved when acquiring an additional asset to be added to an already well-diversified portfolio of assets.
ANS: T **DIF: Easy**

20. The Capital Asset Pricing Model (CAPM) model assumes that investors in assets expect to be compensated for both the time value of money and the systematic or nondiversifiable risk they bear.
ANS: T **DIF: Easy**

MULTIPLE CHOICE

21. Which of the following statements is true about the risk metrics?
    a. It is a system of related measures that help us measure the emotional aspects of risk.
    b. It is important but not critical because enterprises have alternative measures to see whether they have reached risk management objectives.
    c. It is an independent entity and can stand alone.
    d. It allows us to measure risk, giving us an ability to control risk and simultaneously exploit opportunities as they arise.
    e. The risk being considered in a particular situation does not dictate the risk measure used because they are standard for almost all risk types.
ANS: d **DIF: Moderate**

22. A contracting party may not be able to live up to the terms of a financial contract, usually due to total ruin or bankruptcy. Identify this risk.

a. Interest rate risk
b. Default risk
c. Prepayment risk
d. Extension risk
e. Reinvestment risk
ANS: b DIF: Easy

23. _____ is the notion of how often a certain event will occur.
a. Likelihood
b. Severity
c. Forecasting
d. Plausibility
e. Backcasting
ANS: a DIF: Easy

24. Inaccuracies in our abilities to create a correct distribution arise from:
a. the nondiversifiable nature of risks.
b. our risk averse nature.
c. our inability to predict future outcomes accurately.
d. our inability to distinguish between hazards and perils.
e. the inability of insurers to insure all risks.
ANS: c DIF: Moderate

25. The total number of fire claims for the two locations A and B is the same. What does this mean?
a. The frequency and severity of fire claims in locations A and B is the same.
b. The frequency of fire claims in locations A and B differ.
c. The severity of fire claims in locations A and B is the same.
d. Both frequency and severity of fire claims in locations A and B differ.
e. The frequency of fire claims in locations A and B is the same.
ANS: e DIF: Moderate

26. “If I flip a coin, I have a 50 percent chance that it will land on heads.” In this statement, even after the first coin flip, we still have a 50 percent chance that the next flip will result in a head. This statements interprets “probability” as:
a. the severity of occurrence in repeated trials.
b. a relative frequency of occurrence in repeated trials.
c. an absolute severity of occurrence in a single trial.
d. an absolute frequency of occurrence in a single trial.
e. a relative severity of occurrence in a single trial.
ANS: b DIF: Moderate

27. According to the model of equally likely outcomes, the relative frequency of occurrence of events in a long sequence of repeated trials corresponds with the theoretical calculation of:
a. the total number of expected outcomes divided by the actual outcomes.
b. the total number of expected outcomes divided by the number of ways an event could occur.
c. the actual outcomes divided by the expected outcomes.
d. the number of ways an event could occur divided by the total number of possible outcomes.
e. the actual outcomes divided by the total number of expected outcomes.

ANS: d DIF: Moderate

28. If we roll two dice, what is the probability of rolling number 8?
    a. 3/36
    b. 4/36
    c. 5/36
    d. 1/6
    e. 1/18

    ANS: c DIF: Moderate

29. If we roll two dice, what is the probability of rolling a 6 or a 7?
    a. 7/36
    b. 8/36
    c. 9/36
    d. 10/36
    e. 11/36

    ANS: e DIF: Hard

30. The normal distribution or bell-shaped curve from statistics provides an example of a continuous probability distribution curve. While calculating the probability of the occurrence of an event, we find that the area under the curve in between the desired range of profitability values is 0.562. What does this mean?
    a. The probability of the occurrence of the event is 0.562 percent.
    b. The probability of the occurrence of the event is 56.2 percent.
    c. The probability of the occurrence of the event is 43.8 percent.
    d. The probability of the occurrence of the event is 0.438 percent.
    e. The probability of the occurrence can now be calculated by multiplying this number with the standard deviation.

    ANS: b DIF: Moderate

31. The reason that uncertainty is unsettling is not the uncertainty itself but the:
    a. consequences of different outcomes.
    b. expected outcomes.
    c. unpredictability of outcomes.
    d. lack of accurate tools to measure it.
    e. variability of predictable outcomes.

    ANS: a DIF: Moderate

32. Which of the following is defined as the numerical average of the experience of all possible outcomes if you played the game over and over?
    a. Unbiased value
    b. Unfair value
    c. Continuous outcome value
    d. Fair value
    e. Rational value

    ANS: d DIF: Easy

33. Identify the distance between the highest possible outcome value to the lowest in a distribution.
    a. Standard deviation
    b. Mode

c. Variance
d. Skewness
e. Range
ANS: e DIF: Easy

34. By taking the “best-case scenario minus the worst-case scenario” we define the potential breadth of outcomes that could arise in the uncertain situation. Which of the following provides an idea about the “worst-case” dispersion of successive surprises?
a. Confidence
b. Standard deviation
c. Range
d. Mode
e. Variance
ANS: c DIF: Easy

35. Range as a risk measure leaves the picture incomplete because:
a. it cannot distinguish in riskiness between two distributions of situations where the possible outcomes are bounded.
b. it does not take into account the frequency or probability of the extreme values.
c. it measures the frequency of distribution and ignores the severity.
d. it measures the extreme values of the distribution with the probability of its occurrence.
e. it measures the severity of distribution and ignores the frequency.
ANS: b DIF: Moderate

36. One measure of deviation or surprise is by calculating the expected squared distance of each of the various outcomes from their mean value. This is a weighted average squared distance of each possible value from the mean of all observations, where the weights are the probabilities of occurrence. Computationally, we do this by individually squaring the deviation of each possible outcome from the expected value, multiplying this result by its respective probability or likelihood of occurring, and then summing up the resulting products. Identify the measure produced.
a. Variance
b. Confidence
c. Standard deviation
d. Mode
e. Range
ANS: a DIF: Moderate

37. Identify the model used to explicitly show the trade-off between risk and return of assets in a capital market.
a. Value at Risk Model
b. Absolute Return Model
c. Modigliani–Miller Model
d. Capital Asset Pricing Model
e. Discounted Cash Flow Model
ANS: d DIF: Easy

38. Identify the Greek symbol that denotes variance.
a. δ
b. β
c. σ^2

d. δ^2
e. σ
ANS: c DIF: Easy

39. A problem with the _____ as a measure of risk is that by squaring the individual deviations from the mean, you end up with a measure that is in squared units.
a. standard deviation
b. range
c. mode
d. confidence level
e. variance
ANS: e DIF: Easy

40. A problem with the variance as a measure of risk is that by squaring the individual deviations from the mean, you end up with a measure that is in squared units. To get back to the original units of measurement we commonly take the square root and obtain a risk measure known as:
a. the confidence interval.
b. standard deviation.
c. co-efficient of variation.
d. kurtosis.
e. the root mean square.
ANS: b DIF: Easy

41. Identify the Greek symbol that denotes standard deviation.
a. δ
b. β
c. σ^2
d. δ^2
e. σ
ANS: a DIF: Easy

42. If we compare one standard deviation with another distribution of equal mean but larger standard deviation, we could say that:
a. the risk of the distribution is equal.
b. the distribution with the larger standard deviation is riskier.
c. the distribution with the smaller standard deviation is riskier.
d. it is impossible to tell which distribution is riskier because the mean is equal.
e. the distribution with the higher severity would be riskier.
ANS: b DIF: Moderate

43. The coefficient of variation is calculated by dividing the:
a. mean of the distribution by its standard deviation.
b. mean of the distribution by its variance.
c. variance of the distribution by its standard deviation.
d. standard deviation of the distribution by its mean.
e. variance of the distribution by its mean.
ANS: d DIF: Easy

44. The coefficient of variation essentially trades off risk, which is measured by the _____, with the return.
a. standard deviation

b. range
c. mean
d. expected value
e. variance
ANS: a DIF: Easy

45. The coefficient of variation essentially trades off risk with the return. This return is measured by:
a. range.
b. expected value.
c. standard deviation.
d. variance.
e. skewness.
ANS: b DIF: Easy

46. Which of the following can be used to give us a relative value of risk when the means of the distributions are not equal?
a. Confidence level
b. Standard deviation
c. Coefficient of variation
d. Semivariance
e. Range
ANS: c DIF: Easy

47. All the other measures of risk give the same attention or importance to both positive and negative deviations from the mean or expected value. Identify the odd one.
a. Standard deviation
b. Coefficient of variation
c. Variance
d. Semivariance
e. Range
ANS: d DIF: Easy

48. Which of the following measures of risk treats positive and negative deviations from the mean or expected value independently?
a. Range
b. Variance
c. Standard deviation
d. Coefficient of variation
e. Semivariance
ANS: e DIF: Moderate

49. The use of the semivariance turns out to result in the exact same ranking of uncertain outcomes with respect to risk as the use of the variance when the:
a. distribution is asymmetric.
b. coefficient of variation is introduced.
c. distribution is symmetric.
d. range of distributions is equal.
e. standard deviation and mean of distributions is equal.
ANS: c DIF: Moderate

50. Which of the following can be defined as the worst-case scenario dollar value loss that could occur for a company exposed to a specific set of risks?
    a. Fair-Risk value
    b. Value at Risk
    c. Loss-Threshold value
    d. Volatility Arbitrage
    e. Market at Risk
    ANS: b DIF: Easy

51. Identify the amount needed to have in reserve in order to stave off insolvency with the specified level of probability.
    a. Value at Risk
    b. Threshold value
    c. Fair value
    d. Mean value
    e. Reserve value
    ANS: a DIF: Easy

52. In the context of pure risk exposures, the equivalent notion to value at risk (VaR) is the:
    a. Maximal Probable Actual Loss
    b. Maximal Probable Expected Loss.
    c. Maximal Probable Absolute Loss
    d. Maximal Probable Annual Loss.
    e. Maximal Probable Hypothetic Loss
    ANS: d DIF: Moderate

53. From this model we can get a measure of how the return on an asset systematically varies with the variations in the market, and consequently we can get a measure of systematic risk. Identify this model.
    a. Discounted Cash Flow Model
    b. Capital Asset Pricing Model
    c. Modigliani–Miller Model
    d. Absolute Return Model
    e. Value at Risk Model
    ANS: b DIF: Easy

54. The CAPM model assumes that investors in assets expect to be compensated for two factors. Identify them.
    a. Systematic risk and nondiversifiable risk
    b. Idiosyncratic risk and time value of money
    c. Time value of money and nondiversifiable risk
    d. Time value of money and net present value
    e. Depreciation and net present value
    ANS: c DIF: Moderate

55. Methods to compute VaR are
    a. Historical method
    b. Monte Carlo simulation method
    c. Variance-covariance method
    d. b and c

e. <u>a, b and c</u>
ANS: e DIF: Hard

NARRBEGIN: CLAIMS DATA GROUP A AND B
Data of claims for a group A of home in a city is as follows

	# of claims	Total
Year		Losses
1	520	$ 820,000.00
2	480	$ 795,000.00
3	380	$ 725,000.00

Data of claims for a group B of home in a city is as follows for questions 56-63:

	# of claims	Total
Year		Losses
1	350	$ 370,000.00
2	420	$ 450,000.00
3	340	$ 305,000.00

NARREND

56. What is the frequency of the claims in Group A?
a. 460
b. 420
c. 410
d. 350
e. None of the above
ANS: a DIF: Hard NAR: CLAIMS DATA GROUP A AND B

57. What is the severity of these losses in Group A?
a. $1,800.43
b. $1,520.12
c. $1,695.65
d. $1,530.67
e. none of the above
ANS: e DIF: Hard NAR: CLAIMS DATA GROUP A AND B

58. What is the riskiness of the frequency of claims as measured by STD for Group A?

a. 68.33
b. 72.11
c. 66.12
d. 75.18
e. none of the above

ANS: b DIF: Hard NAR: CLAIMS DATA GROUP A AND B

59. What is the riskiness of the frequency of claims as measured by coefficient of variance for Group A?

a. 0.169
b. 0.142
c. 0.157
d. 0.191
e. none of the above

ANS: c DIF: Hard NAR: CLAIMS DATA GROUP A AND B

60. What is the riskiness of the frequency of claims as measured by coefficient of variance for Group B?

a. 0.129
b. 0.132
c. 0.118
d. 0.191
e. none of the above

ANS: e DIF: Hard NAR: CLAIMS DATA GROUP A AND B

61. Which group is riskier in terms of frequency of claims?

a. Group A
b. Group B
c. Unable to determine
d. Group A= group B

ANS: a DIF: Hard NAR: CLAIMS DATA GROUP A AND B

62. Which group has lesser severity per claim for the whole 3 years?

a. Group A
b. Group B
c. Unable to determine
d. Group A= group B

ANS: b DIF: Hard NAR: CLAIMS DATA GROUP A AND B

63. Which group has more variability in the Severity (for the 3 years) using the range?

a. Group A

b. Group B
c. The groups are equal
d. Cannot determine

ANS: a DIF: Hard NAR: CLAIMS DATA GROUP A AND B

64. Explain what is the Measure of Frequency of claims
a. The measure of riskiness of the claims like standard deviation
b. How many claims occur per year on average
c. What is the dollar value of a claim on average
d. Coefficient of variance
e. None of the above

ANS: b DIF: Hard

65. Explain what is the Measure of Severity of claims
a. The measure of riskiness of the dollar losses like standard deviation
b. How many claims occur per year on average
c. What is the dollar value of a claim on average
d. Coefficient of variance
e. None of the above

ANS: c DIF: Hard

66. What is Value at Risk (VaR)?
a. Value at risk is worst-case scenario.
b. VaR depends on statistical distributions, confidence level. It will be different under different statistical assumption for the simulations
c. VaR is not tail risk
d. VaR is the Maximum Probable Annual Loss
e. None of the above

ANS: b DIF: Hard

NARRBEGIN: REGIONAL POOLS
The Regional Insurance company is using the following data to make decisions regarding underwriting and pooling:

	Region A		
Year	**# of homes Pool A**	**# of claims**	**Total Losses**
1	8000	630	$999,000.00
2	8000	590	$1,030,000.00
3	8000	720	$880,000.00

	Region B		
Year	**# of homes Pool B**	**# of claims**	**Total Losses**
1	10,000	980	$1,250,000.00
2	10,000	880	$1,150,000.00
3	10,000	920	$1,850,000.00

NARREND

67. Compute the severity of losses Per Exposure for Region A:
    a. $0.193
    b. $ 0.187
    c. $0.172
    d. $0.199
    e. $0.202
    ANS: b DIF: Hard NAR: REGIONAL POOLS

68. Compute the severity of losses Per Exposure for Region B:
    a. $0.159
    b. $0.169
    c. $0.153
    d. $0.148
    e. $0.176
    ANS: c DIF: Hard NAR: REGIONAL POOLS

69. Compute the coefficient of variance per 1000 units of homes exposure of the claims of Region A (riskiness in terms of frequency of Region A):
    a. 0.01287
    b. 0.02356

c. 0.01783
d. 0.01502
e. 0.00822

ANS: a DIF: Hard NAR: REGIONAL POOLS

70. Compute the coefficient of variance per 1000 units of homes exposure of the claims of Region B (riskiness in terms of frequency of Region B)?

a. 0.00147
b. 0.00431
c. 0.00672
d. 0.00543
e. 0.008988

ANS: d DIF: Hard NAR: REGIONAL POOLS

71. Over a five-year period, Insurance Company X provides coverage for 80,000 homes, while Insurance Company Y covers only 40,000 homes. In both cases, 1 percent of the homeowners file claims (resulting in claim frequency of company X of 800 and of company Y of 400). If the variance for Company X is .4 while the variance for Company Y is .1, use the coefficient of variation to determine which insurer faces the greatest risk and by how much:

a. Insurer Y has a 50 percent greater risk than insurer X
b. Insurer Y has a 25 percent greater risk than insurer X
c. Insurer X has a 25 percent greater risk than insurer Y
d. Insurer X has a 50 percent greater risk than insurer Y
e. The two insurers have the same level of risk

ANS: e DIF: Hard

NARRBEGIN: AUTO DATA

Insurer A – Auto Claims and Losses

<u>Year</u>	# of claims	Total <u>Losses</u>
1	450	$900,000.00
2	320	$700,000.00
3	500	$850,000.00

Insurer B – Auto claims and Losses

<u>Year</u>		<u>Losses</u>
1	370	$450,000.00
2	320	$350,000.00
3	430	$620,000.00

NARREND

72. Compute the severity of losses of Insurer A:
    a. $2500.34
    b. $2250.12
    c. $1929.13
    d. $2000.67
    e. $1953.58

ANS: c DIF: Hard NAR: AUTO DATA

73. Compute the Frequency of claims of Insurer B:
    a. 366.67
    b. 373.33
    c. 333.33
    d. 350
    e. 379.15

ANS: b DIF: Hard NAR: AUTO DATA

74. Compute the standard deviation of the claims of insurer A:
    a. 100
    b. 92.92
    c. 133.33
    d. 150
    e. 82.20

ANS: b DIF: Hard NAR: AUTO DATA

75. What is the Coefficient of variance of the claims of insurer B?

a. 0.1475
b. 0.2331
c. 0.2132
d. 0.2972
e. 0.1934

ANS: a DIF: Hard NAR: AUTO DATA

76. If the coefficient of variance represents the riskiness of the claims of each insurer, which insurer is risker, insurer A or B?

a. Both are as risky
b. Insurer B is riskier
c. Insurer A is riskier
d. There is no data to determine the answer

ANS: c DIF: Hard NAR: AUTO DATA

ESSAY

67. The birth of the "modern" ideas of chance occurred when a problem was posed to mathematician Blaisé Pascal by a frequent gambler. What was the problem? What was Pascal's approach to it?

ANS:

The problem posed was: If two people are gambling and the game is interrupted and discontinued before either one of the two has won, what is a fair way to split the pot of money on the table? Clearly the person ahead at that time had a better chance of winning the game and should have gotten more. The player in the lead would receive the larger portion of the pot of money. However, the person losing could come from behind and win. It could happen and such a possibility should not be excluded. How should the pot be split fairly? Pascal formulated an approach to this problem and, in a series of letters with Pierre de Fermat, developed an approach to the problem that entailed writing down all possible outcomes that could possibly occur and then counting the number of times the first gambler won. The proportion of times that the first gambler won (calculated as the number of times the gambler won divided by the total number of possible outcomes) was taken to be the proportion of the pot that the first gambler could fairly claim.

In the process of formulating this solution, Pascal and Fermat more generally developed a framework to quantify the relative frequency of uncertain outcomes, which is now known as probability. They created the mathematical notion of expected value of an uncertain event. They were the first to model the exhibited regularity of chance or uncertain events and apply it to solve a practical problem. In fact, their solution pointed to many other potential applications to problems in law, economics, and other fields.

DIF: Moderate

68. Probability can have two different meanings or forms as related to statements of uncertain outcomes. Distinguish between the following sentences: "If I sail west from Europe, I have a

50 percent chance that I will fall off the edge of the earth” and “If I flip a coin, I have a 50 percent chance that it will land on heads.”
ANS:
Conceptually, these sentences represent two distinct types of probability statements. The first is a statement about probability as a degree of belief about whether an event will occur and how firmly this belief is held. The second is a statement about how often a head would be expected to show up in repeated flips of a coin. The important difference is that the first statement’s validity or truth will be stated. We can clear up the statement’s veracity for all by sailing across the globe.
The second statement, however, still remains unsettled. Even after the first coin flip, we still have a 50 percent chance that the next flip will result in a head. The second provides a different interpretation of “probability,” namely, as a relative frequency of occurrence in repeated trials. This relative frequency conceptualization of probability is most relevant for risk management.
DIF: Hard

69. Why was the notion of “equally likely outcomes” insufficient?
ANS:
The notions of “equally likely outcomes” and the calculation of probabilities as the ratio of “the number of ways in which an event could occur, divided by the total number of equally likely outcomes” is seminal and instructive. But, it did not include situations in which the number of possible outcomes was (at least conceptually) unbounded or infinite or not equally likely.
DIF: Easy

70. Explain range as a measure of risk.
ANS:
We can use the range of the distribution—that is, the distance between the highest possible outcome value to the lowest—as a rough risk measure. The range provides an idea about the “worst-case” dispersion of successive surprises. By taking the “best-case scenario minus the worst-case scenario” we define the potential breadth of outcomes that could arise in the uncertain situation.
This risk measure leaves the picture incomplete because it cannot distinguish in riskiness between two distributions of situations where the possible outcomes are unbounded, nor does it take into account the frequency or probability of the extreme values.
DIF: Moderate

71. How do you calculate the coefficient of variation? When is it useful?
ANS:
The coefficient of variation can be calculated by dividing the standard deviation of a distribution by its mean. It essentially trades off risk (as measured by the standard deviation) with the return (as measured by the mean or expected value). The coefficient of variation can be used to give us a relative value of risk when the means of the distributions are not equal.
DIF: Easy

72. How is semivariance different from the other measures of risk? When is it used as a measure of risk?
ANS:
The other measures of risks (range, expected value, variance, standard deviation, coefficient of variation) give the same attention or importance to both positive and negative deviations from the mean or expected value. Some people prefer to measure risk by the surprises in one

direction only. Usually only negative deviations below the expected value are considered risky and in need of control or management. For example, a decision maker might be especially troubled by deviations below the expected level of profit and would welcome deviations above the expected value. For this purpose a "semivariance" could serve as a more appropriate measure of risk than the variance, which treats deviations in both directions the same.
The semivariance is the average square deviation. Now you sum only the deviations below the expected value. If the profit-loss distribution is symmetric, the use of the semivariance turns out to result in the exact same ranking of uncertain outcomes with respect to risk as the use of the variance. If the distribution is not symmetric, however, then these measures may differ and the decisions made as to which distribution of uncertain outcomes is riskier will differ, and the decisions made as to how to manage risk as measured by these two measures may be different. As most financial and pure loss distributions are asymmetric, professionals often prefer the semi-variance in financial analysis as a measure of risk, even though the variance (and standard deviation) are also commonly used.
DIF: Moderate

COMPLETION

73. The risk-reward tradeoff is essentially a(n) _____ analysis taking uncertainty into account.
ANS: **cost-benefit** **DIF: Moderate**

74. _____ is the number of times the event is expected to occur in a specified period of time.
ANS: **Frequency** **DIF: Easy**

75. The birth of the "modern" ideas of chance occurred when a problem was posed to mathematician _____ by a frequent gambler.
ANS: **Blaisé Pascal** **DIF: Easy**

76. The _____ is the display of the events on a map that tells us the likelihood that the event or events will occur.
ANS: **distribution** **DIF: Easy**

77. The size of the loss in terms of dollars lost per claim is called _____.
ANS: **severity** **DIF: Easy**

78. Regardless of the source of the likelihoods, we can obtain an assessment of the probabilities or relative frequencies of the future occurrence of each conceivable event. The collection of possible events together with their respective probabilities of occurrence is called a _____ distribution.
ANS: **probability** **DIF: Easy**

79. In economic terms, a risk is a "surprise" outcome that is a consequence of _____.
ANS: **uncertainty** **DIF: Easy**

80. _____ is the deviation from the expected value.
ANS: **Risk;** **DIF: Easy**

81. Using _____ as a measure of risk leaves the picture incomplete because it cannot distinguish in riskiness between two distributions of situations where the possible outcomes are unbounded.
ANS: **range** **DIF: Easy**

82. The _____ is the standard deviation of a distribution divided by its mean.
ANS: **coefficient of variation** **DIF: Easy**

83. The _____ is the average square deviation in a distribution.
ANS: **semivariance** **DIF: Easy**

84. For a given level of confidence and over a specified time horizon, _____ can measure risks in any single or an entire portfolio as long as we have sufficient historical data.
ANS: **Value at Risk** **DIF: Easy**

85. The calculation and interpretation of VaR and Maximal Probable Annual Loss (MPAL) is the same. In _____ contexts one often encounters the term MPAL, whereas in _____ one often encounters the term VaR.
ANS: **insurance; finance** **DIF: Moderate**

86. The VaR examines the size of loss that would occur only 1 percent of the time, but it does not specify the size of the shortfall that the company would be expected to have to make up by a distress liquidation of assets should such a large loss occur. A measure called the _____ is used for this.
ANS: **expected shortfall** **DIF: Easy**

87. _____ is the premium over and above the actuarially fair premium that a risk-averse person is willing to pay to get rid of risk.
ANS: **Risk premium** **DIF: Easy**