

Ch1

1. The decision-making themes covered in *Business Analytics: Data Analysis & Decision Making* include which of the following?

- a. optimization techniques
- b. decision analysis with uncertainty
- c. structured sensitivity analysis
- d. all of these choices

ANSWER: d

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1-2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

2. Which statement is *not* true?

- a. Dealing with uncertainty includes measuring uncertainty.
- b. Dealing with uncertainty includes modeling uncertainty explicitly into the analysis.
- c. Dealing with uncertainty includes eliminating uncertainty by using the normal probability distribution.
- d. Dealing with uncertainty requires a basic understanding of probability.

ANSWER: c

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

3. What is *not* one of the important themes of your *Business Analytics: Data Analysis & Decision Making* text?

- a. data analysis
- b. dealing with uncertainty
- c. decision making
- d. data mining

ANSWER: d

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

4. Data analysis includes:

- a. data description
- b. data inference
- c. the search for relationships in data
- d. all of these choices

ANSWER: d

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

5. Which of the following is *not* one of the steps in the modeling process?

- a. Select the scale for the model.
- b. Collect and summarize data.
- c. Verify the model.
- d. Present the results.
- e. Implement the model and update it through time.

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ANSWER: a

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.2 Overview of the Book

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6. Which of the following would not be included under data analysis?

- a. measuring uncertainty
- b. data description
- c. data inference
- d. search for relationships

ANSWER: a

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

7. The decision making process includes:

- a. optimization techniques for problems with no uncertainty
- b. decision analysis for problems with uncertainty
- c. sensitivity analysis
- d. all of these choices

ANSWER: d

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

8. Which tool is an Excel[®] add-in for performing what-if analyses?

- a. PrecisionTree
- b. TopRank
- c. Solver
- d. @Risk
- e. StatTools

ANSWER: b

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

9. Which of the following statements are true?

- a. Three important themes run through the book: data analysis, decision making, and uncertainty.
- b. Data analysis includes data description, data inference, and the searching for relationships in data
- c. Decision making includes optimization techniques for problems with no uncertainty, decision analysis for problems with uncertainty, and structured sensitivity analysis.
- d. Dealing with uncertainty includes measuring uncertainty and modeling uncertainty explicitly into the analysis.

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e. All of these statements are true.

ANSWER: e

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

10. Data analysis includes data *description*, data *inference*, and the search for *relationships* in data.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

11. Decision-making includes *optimization techniques* for problems with certainty, *decision analysis* for problems with certainty, and structured *sensitivity analysis*.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

12.

A relatively new aspect of business analytics is big data, which typically implies the analysis of the very large data sets that companies currently encounter.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

13. Three important themes run through the *Business Analytics: Data Analysis & Decision Making* text: data analysis, decision-making, and dealing with uncertainty.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

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OTHER: BUSPROG: Analytic | DISC: Decision Making

14. Spreadsheet simulations cannot be performed entirely with the built-in or add-in tools in Excel[®], so spreadsheet simulations are still one of the most difficult quantitative models to implement in the business world.

- a. True
- b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Data Methods

15. Although it is relatively easy to collect data, it can be more challenging to understand what the data mean.

- a. True
- b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Data Methods

16. When we use simulation models to help make decisions, we do not deal with uncertainty at all, since we often must make inferences from the simulated data.

- a. True
- b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

17. We must deal with uncertainty when we make inferences from data and search for relationships in data, or when we use decision trees to help make decisions.

- a. True
- b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Decision Making

18. @Risk is an Excel[®] add-in that can be used to run replications of a simulation, keep track of outputs, create useful charts, and perform sensitivity analyses.

- a. True
- b. False

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ANSWER: True

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.2 Overview of the Book

OTHER: BUSPROG: Analytic | DISC: Data Methods

19. Which of the following statements is false?

- The modeling process discussed in your text is a five-step process.
- Dealing with uncertainty requires a basic understanding of probability.
- Uncertainty is a key aspect of most business problems.
- Data description and data inference are data analysis themes.

ANSWER: a

POINTS: 1

DIFFICULTY: Easy | Bloom's Knowledge

TOPICS: A-Head: 1.2 Overview of the Book | 1.3 Models and Modeling

OTHER: BUSPROG: Analytic | DISC: Decision Making

20. Which of the following statements are false?

- Decision-making includes *optimization techniques* for problems with certainty, *decision analysis* for problems with certainty, and structured *sensitivity analysis*.
- Graphical models can be very helpful for simple problems. For complex problems, however, graphical models usually fail to show the important elements of a problem and how they are related.
- Dealing with uncertainty includes *measuring* uncertainty and *modeling* uncertainty explicitly into the analysis.
- All of these statements are false.

ANSWER: c

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.2 Overview of the Book | 1.3 Models and Modeling

OTHER: BUSPROG: Analytic | DISC: Decision Making

21. Which of the following statements are true?

- A fairly recent alternative to algebraic modeling is spreadsheet modeling. Instead of relating various quantities with algebraic equations and inequalities, we relate them in a spreadsheet with cell formulas.
- Data are usually meaningless until they are analyzed for trends, patterns, relationships, and other useful information.
- Algebraic models, by means of algebraic equations and inequalities, specify a set of relationships in a very precise way. Their main drawback is that they require an ability to work with abstract mathematical symbols.
- When we make inferences from data and search for relationships in data, or when we use decision trees to help make decisions, we must deal with uncertainty.
- All of these statements are true.

ANSWER: e

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.2 Overview of the Book | 1.3 Models and Modeling

OTHER: BUSPROG: Analytic | DISC: Decision Making

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22. What is *not* one of the types of models described in your *Business Analytics: Data Analysis & Decision Making* text?

- a. algebraic model
- b. spreadsheet model
- c. scale model
- d. graphical model

ANSWER: c

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1.3 Modeling and Models

OTHER: BUSPROG: Analytic | DISC: Decision Making

23. The modeling process discussed in your *Business Analytics: Data Analysis & Decision Making* text is a:

- a. seven-step process
- b. six-step process
- c. five-step process
- d. four-step process
- e. three-step process

ANSWER: a

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1.3 Models and Modeling

OTHER: BUSPROG: Analytic | DISC: Decision Making

24. Which is an Excel[®] add-in for simulation?

- a. PrecisionTree
- b. TopRank
- c. Solver
- d. @Risk
- e. StatTools

ANSWER: d

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.3 Models and Modeling

OTHER: BUSPROG: Analytic | DISC: Decision Making

25. The authors of the *Business Analytics: Data Analysis & Decision Making* text describe three types of models: graphical models, algebraic models, and spreadsheet models.

- a. True
- b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1.3 Models and Modeling

OTHER: BUSPROG: Analytic | DISC: Decision Making

26. Graphical models are the least intuitive type of model.

- a. True

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b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.3 Models and Modeling

OTHER: BUSPROG: Analytic | DISC: Decision Making

27. The overall modeling process typically done in the business world always require seven steps: define the problem, collect and summarize data, formulate a model, verify the model, select one or more suitable decisions, present the results to the organization, and finally implement the model and update it through time.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.3 Models and Modeling

OTHER: BUSPROG: Analytic | DISC: Decision Making

28. Algebraic models, by means of algebraic equations and inequalities, specify a set of relationships in a very precise way, but they require an ability to work with abstract mathematical symbols.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Easy | Bloom's: Knowledge

TOPICS: A-Head: 1.3 Models and Modeling

OTHER: BUSPROG: Analytic | DISC: Decision Making

29. A fairly recent alternative to algebraic modeling is spreadsheet modeling, which, instead of relating various quantities with algebraic equations and inequalities, relates them in a spreadsheet with cell formulas.

a. True

b. False

ANSWER: True

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.3 Models and Modeling

OTHER: BUSPROG: Analytic | DISC: Decision Making

30. Graphical models are the most quantitative type of model.

a. True

b. False

ANSWER: False

POINTS: 1

DIFFICULTY: Easy | Bloom's: Comprehension

TOPICS: A-Head: 1.3 Models and Modeling

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