***Data Analytics for Accounting, 1e* (Richardson)**

**Chapter 1 Data Analytics in Accounting and Business**

1) Data analytics is the process of evaluating data with the purpose of drawing conclusions to address business questions.

2) The process of data analytics aims to transform raw information into data to create value.

3) Data analytics has the potential to transform the manner in which companies run their businesses; however, it is not practical in the near future.

4) Auditors can use social media to hear what customers are saying about a company and compare this to inventory obsolescence and other estimates.

5) Data analytics allows auditors to glean insights that are beneficial to the client, without breaching independence.

6) The predictive analytics is an important aspect of data analytics for auditors, but is not applicable for tax accountants.

7) The I in IMPACT Cycle represents Identify the Question.

8) The M in IMPACT Cycle represents Master the Data.

9) The P in IMPACT Cycle represents Predict the Results.

10) The A in IMPACT Cycle represents Analyze the Data.

11) The C in IMPACT Cycle represents Continuously Track.

12) The T in IMPACT Cycle represents Track Outcomes.

13) Data normalization can reduce data redundancy and improve data integrity.

14) The IMPACT cycle is iterative, as insights are gained, outcomes are tracked, and new questions are identified.

15) Data analytics professionals estimate that they spend between 25 percent and 70 percent of their time cleaning data so it can be analyzed.

16) Data analysis through data manipulation is performing basic analysis to understand the quality of the underlying data and its ability to address the business question.

17) To be proficient in data analysis, accountants need to become data scientists.

18) By developing an analytics mindset, accountants will be able to recognize when and how data analytics can address business questions.

19) While it is important for accountants to clearly articulate the business problem, drawing appropriate conclusions, based on the data, should be left to statisticians.

20) Analytic-minded accountants should report results of analysis in an accessible way to each varied decision maker, along with their specific needs.

21) With a goal of giving organizations the information they need to make sound and timely business decisions, data analytics often involves all of the following *except*:

A) technologies.

B) statistics.

C) growth.

D) databases.

22) Patterns discovered from \_\_\_\_\_\_\_\_ enable businesses to identify opportunities and risks in order to better plan for \_\_\_\_\_\_\_\_.

A) past archives; the future

B) current data; the future

C) current data; today

D) past archives; today

23) Which of the following best describes the data analytics skill of descriptive data analysis?

A) recognize what is meant by data quality, be it completeness, reliability or validity

B) perform basic analysis to understand the quality of the underlying data and its ability to address the business question

C) demonstrate ability to sort, rearrange, merge, and reconfigure data in a manner that allows enhanced analysis

D) comprehend the process needed to clean and prepare the data before analysis

24) Which of the following best describes the data analytics skill of data quality?

A) recognize what is meant by data quality, be it completeness, reliability or validity

B) perform basic analysis to understand the quality of the underlying data and its ability to address the business question

C) demonstrate the ability to sort, rearrange, merge, and reconfigure data in a manner that allows enhanced analysis

D) comprehend the process needed to clean and prepare the data before analysis

25) Which of the following best describes the data analytics skill of data analysis through data manipulation?

A) recognize what is meant by data quality, be it completeness, reliability or validity

B) perform basic analysis to understand the quality of the underlying data and its ability to address the business question

C) demonstrate ability to sort, rearrange, merge, and reconfigure data in a manner that allows enhanced analysis

D) comprehend the process needed to clean and prepare the data before analysis

26) Which of the following best describes the data analytics skill of data scrubbing and data preparation?

A) recognize what is meant by data quality, be it completeness, reliability or validity

B) perform basic analysis to understand the quality of the underlying data and its ability to address the business question

C) demonstrate the ability to sort, rearrange, merge and reconfigure data in a manner that allows enhanced analysis

D) comprehend the process needed to clean and prepare the data before analysis

27) Which of the following best describes the data analytics skill of developing an analytics mindset?

A) recognize when and how data analytics can address business questions

B) perform basic analysis to understand the quality of the underlying data and its ability to address the business question

C) recognize what is meant by data quality, be it completeness, reliability or validity

D) comprehend the process needed to clean and prepare the data before analysis

28) Which of the following best describes the data analytics skill of data visualization and data reporting?

A) recognize when and how data analytics can address business questions

B) perform basic analysis to understand the quality of the underlying data and its ability to address the business question

C) recognize what is meant by data quality, be it completeness, reliability or validity

D) report results of analysis in an accessible way to each varied decision maker and their specific needs

29) Which of the following best describes the data analytics skill of defining and addressing problems through statistical data analysis?

A) recognize what is meant by data quality, be it completeness, reliability or validity

B) perform basic analysis to understand the quality of the underlying data and its ability to address the business question

C) demonstrate ability to sort, rearrange, merge and reconfigure data in a manner that allows enhanced analysis

D) identify and implement an approach that will use statistical data analysis to draw conclusions and make recommendations on a timely basis

30) While accountants don't need to become data scientists, they must know how to do the following *except*:

A) Clearly articulate the business problem the company is facing

B) Communicate with the data scientists about specific data needs and understand the underlying quality of the data

C) Build a data repository

D) Comprehend the process needed to clean and prepare the data before analysis

31) Which approach to data analytics attempts to estimate or predict, for each unit, the numerical value of some variable using some type of statistical model?

A) Similarity matching.

B) Classification.

C) Data reduction.

D) Regression.

32) Which approach to data analytics attempts to assign each unit (or individual) in a population into a few categories?

A) Similarity matching.

B) Classification.

C) Data reduction.

D) Regression

33) Which approach to data analytics attempts to characterize the typical behavior of an individual, group or population by generating summary statistics about the data?

A) Similarity matching.

B) Profiling.

C) Data reduction.

D) Regression.

34) Which approach to data analytics attempts to reduce the amount of information that needs to be considered to focus on the most critical items?

A) Similarity matching.

B) Profiling.

C) Data reduction.

D) Regression.

35) Which of the following best describes the classification approach to data analytics?

A) An attempt to assign each unit (or individual) in a population into a few categories.

B) An attempt to identify similar individuals based on data known about them.

C) An attempt to divide individuals into groups in a useful or meaningful way.

D) An attempt to discover associations between individuals based on transactions involving them.

36) Which of the following best describes the clustering approach to data analytics?

A) An attempt to assign each unit (or individual) in a population into a few categories.

B) An attempt to identify similar individuals based on data known about them.

C) An attempt to divide individuals into groups in a useful or meaningful way.

D) An attempt to discover associations between individuals based on transactions involving them.

37) Which of the following best describes the similarity matching approach to data analytics?

A) An attempt to assign each unit (or individual) in a population into a few categories.

B) An attempt to identify similar individuals based on data known about them.

C) An attempt to divide individuals into groups in a useful or meaningful way.

D) An attempt to discover associations between individuals based on transactions involving them.

38) Which of the following best describes the regression approach to data analytics?

A) An attempt to estimate or predict, for each unit, the numerical value of some variable using some type of statistical model.

B) An attempt to predict a relationship between two data items.

C) An attempt to divide individuals into groups in a useful or meaningful way.

D) An attempt to discover associations between individuals based on transactions involving them.

39) Which of the following best describes the co-occurrence grouping approach to data analytics?

A) An attempt to characterize the typical behavior of an individual, group or population by generating summary statistics about the data.

B) An attempt to predict a relationship between two data items.

C) An attempt to reduce the amount of information that needs to be considered to focus on the most critical items.

D) An attempt to discover associations between individuals based on transactions involving them.

40) Which of the following best describes the link prediction approach to data analytics?

A) An attempt to characterize the typical behavior of an individual, group or population by generating summary statistics about the data.

B) An attempt to predict a relationship between two data items.

C) An attempt to reduce the amount of information that needs to be considered to focus on the most critical items.

D) An attempt to discover associations between individuals based on transactions involving them.

41) Which of the following best describes the profiling approach to data analytics?

A) An attempt to characterize the typical behavior of an individual, group or population by generating summary statistics about the data.

B) An attempt to predict a relationship between two data items.

C) An attempt to reduce the amount of information that needs to be considered to focus on the most critical items.

D) An attempt to discover associations between individuals based on transactions involving them.

42) Which of the following best describes the data reduction approach to data analytics?

A) An attempt to characterize the typical behavior of an individual, group or population by generating summary statistics about the data.

B) An attempt to predict a relationship between two data items.

C) An attempt to reduce the amount of information that needs to be considered to focus on the most critical items.

D) An attempt to discover associations between individuals based on transactions involving them.

43) Which approach to data analytics attempts to discover associations between individuals based on transactions involving them?

A) Similarity matching.

B) Clustering.

C) Co-occurrence grouping.

D) Link prediction.

44) Which approach to data analytics attempts to identify similar individuals based on data known about them?

A) Similarity matching.

B) Clustering.

C) Co-occurrence grouping.

D) Link prediction.

45) Which approach to data analytics attempts to predict a relationship between two data items?

A) Similarity matching.

B) Clustering.

C) Co-occurrence grouping.

D) Link prediction.

46) Which approach to data analytics attempts to divide individuals into groups in a useful or meaningful way?

A) Similarity matching.

B) Clustering.

C) Co-occurrence grouping.

D) Link prediction.

47) The impact cycle includes all the following processes *except*:

A) Communicate insights.

B) Perform test plan.

C) Analyze the data.

D) Track outcomes.

48) The impact cycle includes all the following processes *except*:

A) Identify the questions.

B) Address and refine results.

C) Communicate insights.

D) Continuously track.

49) The impact cycle includes all the following processes *except*:

A) Identify the questions.

B) Address and refine results.

C) Track outcomes.

D) Predict the results.

50) One of the most important aspects of data analytics that impacts tax is:

A) predictive analytics.

B) co-occurrence grouping

C) similarity matching.

D) data quality.

51) List and describe the eight (8) different approaches to data analytics.

52) List and explain four (4) of the seven (7) data analytic skills needed by analytic-minded accountants:

53) As more and more data is available, some would argue that the role of accounting is changing. While accountants don't need to become data scientists, they must develop a base level skill set. Whether they are the Director of Tax for Hewlett Packard or their external auditor, which basic skills are needed by an analytic-minded accountant?

54) What is the regression approach? How might the regression approach be used in auditing?

55) Assume that you have just started a new job as a credit manager for a Fortune 500 company. Using the IMPACT Cycle, explain the process. For each step in the cycle, provide examples and state the information/data you would need to make a credit worthiness decision.