Package Title: Testbank

Course Title: Botkin 9e

Chapter Number: 02

Question type: Multiple Choice

1) A scientific hypothesis:

a) is similar to a theory because it is based on numerous experiments

b) is really just an educated guess at the answer to a question

c) can never be the true answer to a scientific question

d) always requires controls as part of its statement

e) can never become a scientific fact

Answer: b

Difficulty: Easy

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

2) An explanation for a natural phenomenon that relates and explains many observations and is supported by a great deal of evidence is called a:

a) hypothesis

b) controlled experiment

c) technology

d) theory

e) fact

Answer: d

Difficulty: Easy

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

3) A “control” is used in a scientific experiment to:

a) provide a standard against which results of tests can be compared

b) provide a theory against which results of tests can be compared

c) improve the technology of the experiment

d) cross-check known facts with theories

e) improve the techniques used in the experiment

Answer: a

Difficulty: Easy

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

4) Which of the following is the correct sequence of steps, from beginning to end, in the Scientific Method?

a) hypothesis –> controlled experiment –> inferences –> conclusions

b) conclusions –> controlled experiment –> observations –> hypothesis

c) controlled experiment –> inferences –> deductive proof –> hypothesis

d) observations –> hypothesis –> controlled experiment –> conclusions

e) conclusions –> observations –> alter observations to fit conclusions –> future research grants and awards

Answer: d

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

5) Dr. Smith is stressed about waking up and making it on time to the airport in order to catch his plane. He sets the alarm on his digital watch (reads to 1/100 of a second!) and arrives at 7:00:00.00 a.m. Unfortunately, every other clock on the airplane terminal reads about 7:20. Dr. Smith is unable to make it through security in time and misses his flight. Which of the following is a correct statement about Dr. Smith’s watch?

a) it is precise, but not accurate

b) it is accurate, but not precise

c) it is neither accurate nor precise

d) it is both accurate and precise

e) it is a lousy time piece

Answer: a

Difficulty: Medium

Learning Objective 1: LO 2.3 Discuss uncertainty, accuracy, and precision in measurement.

Section Reference 1: Section 2.3 Measurements and Uncertainty

6) A scientist is testing the factors that lead to the growth of larger tomatoes. In one particular series of experiments, she holds the moisture and the amount of fertilizer constant, but varies the soil type and measures the resulting changes in tomato weight. Which of the following is the independent variable in these experiments?

a) moisture

b) amount of fertilizer

c) tomato weight

d) amount of sunlight

e) soil type

Answer: e

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

7) A scientist is raising goldfish in several aquaria in his laboratory. He varies the size and amount of oxygen dissolved in the tanks to determine which combination will support the greatest number of fish. Which is the dependent variable in this experiment?

a) the number of fish that survive

b) the size of the aquarium

c) the amount of oxygen dissolved in the water

d) the amount of food given to the fish

e) the combination of aquarium size, food, and dissolved water

Answer: a

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

8) Which of the following topics would not be a good subject for a scientist to attempt to study scientifically?

a) the number of Birds that live a Mono Lake

b) the effect of pesticides on hawks and owls in an area

c) the ultimate purpose of life

d) the effect of human activity of a forested area

e) the best way to keep termites from destroying a house

Answer: c

Difficulty: Easy

Learning Objective 1: LO 2.1 Explain how scientific thinking differs from nonscientific thinking.

Section Reference 1: Section 2.1 Understanding What Science Is—and What It Isn’t

9) The process by which a scientist formulates a theory after analyzing the results of many experiments is an example of:

a) speculation

b) inductive reasoning

c) deductive reasoning

d) theory building

e) manipulative reasoning

Answer: b

Difficulty: Easy

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

10) Based on her knowledge of the theory of gravity, a teacher walks into her science classroom and tells the students that if someone steps off the roof of a building, they will fall to the ground. This is an example of:

a) speculation

b) inductive reasoning

c) deductive reasoning

d) theory building

e) manipulative reasoning

Answer: c

Difficulty: Easy

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

11) In case study, “Birds at Mono Lake,” what was the scientists’ main concern when Los Angeles diverted the streams that feed into Mono Lake in order to provide water for the city?

a) the lake would dry up completely

b) the lake would become too salty for wildlife in the lake

c) algae growth would increase exponentially

d) the lakes riparian vegetation would die off

e) scientists were not concerned because groundwater and rain would provide ample water for the lake

Answer: b

Difficulty: Medium

Learning Objective 1: LO 2.1 Explain how scientific thinking differs from nonscientific thinking.

Section Reference 1: Section 2.1 Understanding What Science Is—and What It Isn’t

12) Unlike the Ancient Greek philosophers who developed a theoretical approach to science by asking “why?,” modern scientists asked “how does it work.” What method of thinking was developed as a result of this approach?

a) the modern method of science

b) the theory

c) the hypothetical method

d) the scientific method

e) method of validity

Answer: d

Difficulty: Easy

Learning Objective 1: LO 2.1 Explain how scientific thinking differs from nonscientific thinking.

Section Reference 1: Section 2.1 Understanding What Science Is—and What It Isn’t

13) Premise: A straight line is the shortest distance between two points.

Premise: The line from A to B is the shortest distance between points A and B.

Conclusion: Therefore, the line from A to B is a straight line.

The above syllogism is an example of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a) a scientific proof

b) a hypothesis

c) inductive reasoning

d) deductive reasoning

e) a scientific fact

Answer: d

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

14) A scientist notes that the numbers of hawks in an agricultural area are decreasing, even though there are plenty of mice to catch and eat. The scientist states that he believes the cause of this decrease in numbers is due to the effect of pesticides on the survival of hawk eggs. This statement is:

a) an accepted theory

b) true in its facts but false in its assumptions

c) a hypothesis

d) a statement that cannot be disproved

e) a fact

Answer: c

Difficulty: Easy

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

15) Science and technology are often confused with each other. Which of the following is an incorrect statement regarding science and technology?

a) science cannot be advanced without technology

b) technology leads to scientific discoveries

c) science is limited by the technology available

d) science leads to new technological advances

e) science is the search for understanding the natural world

Answer: a

Difficulty: Medium

Learning Objective 1: LO 2.4 Discuss uncertainty, accuracy, and precision in measurement.

Section Reference 1: Section 2.4 Misunderstandings About Science and Society

16) A scientist wishes to test the effects of different amounts of water and fertilizer on yields of corn. In a series of test fields, she varies the supply of water and the amount of fertilizer applied to a given strain of corn and measures the weight of the crop that results. In this experiment, which is/are the dependent variable(s)?

a) corn yield and variety of corn strain

b) water supply and supply of fertilizer

c) corn yield

d) water supply and effect of climate

e) supply of fertilizer and variety of corn strain

Answer: c

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

17) Scientists have adopted the Scientific Method as their standard procedure for answering questions about natural phenomena. They have relied on this technique because:

a) observations should only be done in a laboratory

b) when using the Scientific Method, it is not necessary to conduct controlled experiments

c) following a standardized procedure allows a scientist to compare his/her data with the results of other scientists

d) the Scientific Method allows scientists to determine what their results will be before actually doing any experiments

e) the results will always be useful quantitative data

Answer: c

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

18) Which of the following statements is true about assumptions of science?

a) events in the natural world do not follow patterns

b) science is based on a type of reasoning known as induction

c) basic processes and laws are not the same throughout the universe

d) generalizations can not be subjected to tests that disprove them

e) science can provide absolute proof of the truth of its theories

Answer: b

Difficulty: Medium

Learning Objective 1: LO 2.1 Explain how scientific thinking differs from nonscientific thinking.

Section Reference 1: Section 2.1 Understanding What Science Is—and What It Isn’t

19) A scientist is studying the yearly rainfall in an area and measures the amount of rain with a gauge marked in milliliters (10 milliliters per centiliter). Overnight, enough rain falls to rise to the level of exactly 5.1 centiliters. The measurement should be recorded as:

a) 5.0 cl

b) 5.10 cl

c) 5.1 cl

d) 5 cl

e) 5.100 cl

Answer: b

Difficulty: Medium

Learning Objective 1: LO 2.3 Discuss uncertainty, accuracy, and precision in measurement.

Section Reference 1: Section 2.3 Measurements and Uncertainty

20) In the ancient civilizations of Babylonia and Egypt, observations of the environment were carried out for all of the following purposes except:

a) planting crops

b) religious reasons

c) predicting human events

d) to understand the fundamental laws of the universe

e) for navigation of ships

Answer: d

Difficulty: Easy

Learning Objective 1: LO 2.1 Explain how scientific thinking differs from nonscientific thinking.

Section Reference 1: Section 2.1 Understanding What Science Is—and What It Isn’t

21) Science is the search for \_\_\_\_\_\_\_\_\_\_ of the natural world, while technology is implemented for \_\_\_\_\_\_\_\_\_\_ the natural world for human benefit.

a) control; damage to

b) understanding; manipulation of

c) improvement; damage to

d) improvement; manipulation of

e) control; use of

Answer: b

Difficulty: Medium

Learning Objective 1: LO 2.4 Discuss the roles of science and scientific thinking is societal decision-making.

Section Reference 1: Section 2.4 Misunderstandings About Science and Society

22) Refer to the diagram and the statements that follow below:

A• \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ •B

– The shortest distance between two points is a curved line

– The line A-B is the shortest distance between point A and point B

–––> Therefore, line A-B is a curve.

Which of the following statements is the correct analysis of the above proof?

a) the assumptions are correct, but the conclusion is wrong

b) the proof is internally correct, but the assumptions are wrong

c) the proof is flawed, but its conclusion is correct

d) the proof reaches a flawed conclusion because it is not a syllogism

e) the statements are correct, but irrelevant

Answer: b

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

23) – Humans are the only tool-making organisms.  
– Chimpanzees make tools.  
 –––> Therefore chimpanzees are human.  
  
The three statements above are all of the following except:

a) a syllogism

b) a deductive proof

c) an inductive proof

d) internally correct

e) the conclusion defies common sense

Answer: c

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

24) Inductive reasoning involves which of the following:

a) generalizations based on a number of concrete observations

b) generalizations based on a single concrete observation

c) generalizations based on a persuasive argument by an expert in the field

d) generalizations that cannot be tested

e) generalizations that usually prove to be false

Answer: a

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

25) Which of the following processes allows scientists to test a hypothesis by observation?

a) rational thought processes

b) rational syllogisms

c) deductive reasoning

d) the scientific method

e) inclusive theories

Answer: d

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

26) Which of the following is one of the chief activities of modern science (as opposed to technology) is focused on:

a) the existence of supernatural things

b) observations of the natural world

c) the existence of life on other planets

d) control of the natural world

e) the ultimate role of life on Earth

Answer: b

Difficulty: Easy

Learning Objective 1: LO 2.4 Discuss the roles of science and scientific thinking is societal decision-making.

Section Reference 1: Section 2.4 Misunderstandings About Science and Society

27) You weigh flour on a scale to find out how much you need for baking cookies according to your recipe. But yesterday the scale fell from the counter onto the floor and is now off by 10.00 grams. Your scale still reads two decimal places (for example (90.02 g), so it still gives a (n) \_\_\_\_\_\_\_\_\_\_\_ measurement of the amount of flour:

a) accurate

b) deductive

c) inductive

d) estimated

e) precise

Answer: e

Difficulty: Medium

Learning Objective 1: LO 2.3 Discuss uncertainty, accuracy, and precision in measurement.

Section Reference 1: Section 2.3 Measurements and Uncertainty

28) You weigh flour on a scale to find out how much you need for baking cookies according to your recipe. But yesterday the scale fell from the counter onto the floor and is now off by 10.00 grams. If you do not correct for the effect of the fall, your cookies will come out like bricks because the scale does not give a (n) \_\_\_\_\_\_\_\_\_\_ measurement.

a) accurate

b) deductive

c) inductive

d) estimated

e) precise

Answer: a

Difficulty: Easy

Learning Objective 1: LO 2.3 Discuss uncertainty, accuracy, and precision in measurement.

Section Reference 1: Section 2.3 Measurements and Uncertainty

Question type: True/False

29) Scientific research is always carried out under completely objective conditions.

Answer: False

Difficulty: Easy

Learning Objective 1: LO 2.4 Discuss the roles of science and scientific thinking is societal decision-making.

Section Reference 1: Section 2.4 Misunderstandings About Science and Society

30) Charles Darwin devised the Theory of Evolution after studying numerous cases of adaptation through natural selection, a good example of deductive reasoning.

Answer: False

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

31) Dependent variables are so named because their manifestation is “dependent” on the manipulation of independent variables in an experiment.

Answer: True

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

32) One of the most important features of scientific laws and theories is the fact that they are subject to challenge, hence subject to change as new knowledge comes to light.

Answer: True

Difficulty: Easy

Learning Objective 1: LO 2.1 Explain how scientific thinking differs from nonscientific thinking.

Section Reference 1: Section 2.1 Understanding What Science Is—and What It Isn’t

33) A good scientific experiment must have quantitative aspects, and cannot be used to investigate strictly qualitative questions.

Answer: False

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

34) Because of the possibility of error, historical evidence is never a good substitute for a scientific experiment.

Answer: False

Difficulty: Basic

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

35) The term “precision” refers to how many decimal points we can measure with a device.

Answer: True

Difficulty: Medium

Learning Objective 1: LO 2.3 Discuss uncertainty, accuracy, and precision in measurement.

Section Reference 1: Section 2.3 Measurements and Uncertainty

36) Many questions that rests on faith can be tested scientifically.

Answer: False

Difficulty: Easy

Learning Objective 1: LO 2.4 Discuss the roles of science and scientific thinking is societal decision-making.

Section Reference 1: Section 2.4 Misunderstandings About Science and Society

Question type: Essay

37) A friend of yours suggests that life as we know it on Earth actually originated on another planet and was brought to Earth by large meteorites that struck the Earth eons ago. Can you propose a testable hypothesis to determine if this idea is correct? Explain your answer.

Answer: There is no way to test this hypothesis; therefore, it is not a good hypothesis.

Difficulty: Medium

Learning Objective 1: LO 2.1 Explain how scientific thinking differs from nonscientific thinking.

Section Reference 1: Section 2.1 Understanding What Science is – and What it isn’t

38) A scientist wishes to test the effects of different amounts of water and fertilizer on yields of corn. In a series of test fields, she varies the supply of water and the amount of fertilizer applied to a given strain of corn and measures the weight of the crop that results. In this experiment, which are the independent variables and which are the dependent variables?

Answer: independent: water supply, supply of fertilizer; dependent: corn yield

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

39) Explain the differences between “frontier science,” “accepted science,” and “pseudoscience.” How are these terms related?

Answer: Frontier, or “cutting-edge” science is largely untested. It may later become accepted or rejected. Accepted science is tested and generally agreed upon. The belief in continually rejected theories is known as “pseudoscience.”

Difficulty: Easy

Learning Objective 1: LO 2.4 Discuss the roles of science and scientific thinking is societal decision-making.

Section Reference 1: Section 2.4 Misunderstandings about Science and Society

40) When can a scientific observation be called a fact?

Answer: When the accuracy of the observation is checked by comparing observations, and when it is agreed upon by all or almost all scientists.

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

41) Refer to the diagram and the three statements below:  
  
A• \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ •B  
– The shortest distance between two points is a curved line  
– The line A-B is the shortest distance between point A and point B  
–––> Therefore, line A-B is a curve.   
  
The syllogism above is technically correct, but its conclusion is wrong. How did this occur?

Answer: It began with an incorrect assumption.

Difficulty: Easy

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

42) Explain why so many people still believe the crop circles seen in England were not created by humans even though two men confessed in 1991 to having created them?

Answer: They misunderstood the Scientific Method and engage in fallacious reasoning. At some level they want to believe in the crop circles and ignore scientific analysis and reasoning. People often believe that some conclusions are correct, based on their values.

Difficulty: Medium

Learning Objective 1: LO 2.4 Discuss the roles of science and scientific thinking is societal decision-making.

Section Reference 1: Section 2.4 Misunderstandings About Science and Society

43) Scientists at Deoxyribotech, a biotechnology company, believe that their new pet microorganism can, under the right conditions, digest oil spilled into ocean water. They test this in a tank of oily water, where they hold salinity constant, vary water temperature, and measure the amount of oil present after two-days time. The results show that the most oil is consumed at water temperatures between 25° and 30°C. The scientists conclude that the microorganism would be useful in fighting oil spills in tropical oceans.  
  
Identify the following in the example above:

A - the independent variable in the experiment:

B - the dependent variable in the experiment:

C - the hypothesis:

D - the inference:

E - the fact:

Answer:   
A) temperature   
B) amount of oil present after two days  
C) that the microorganism can digest oil  
D) that the microorganism will be effective in oil spills in tropical oceans  
E) that more oil is removed from water in the presence of the microorganism between 25° and 30°C than at other temperatures.

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

44) A very precise measurement needs / does not need to be accurate because accuracy refers to an accepted value / the degree of exactness.

Answer: does not need; an accepted value

Difficulty: Easy

Learning Objective 1: LO 2.3 Discuss uncertainty, accuracy, and precision in measurement.

Section Reference 1: Section 2.3 Measurements and Uncertainty

45) If you apply more fertilizer to tomato plants, they will produce more tomatoes.  
Match the following variables to the terms below (one or more may apply):  
  
a = dependent variable  
b = independent variable  
c = manipulated variable  
d = responding variable  
  
Size of the tomato: \_\_\_\_\_\_

Amount of fertilizer: \_\_\_\_\_\_

Answer: Size of the tomato: a, d; Amount of fertilizer: b, c

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

46) Like the Scientific Method, the process of making decisions can be presented as a series of steps. List these steps, as enumerated in the textbook.

Answer:  
1) formulate a clear statement of the problem to be decided

2) gather the scientific information related to the issue

3) list all alternative courses of action

4) predict positive and negative consequences

5) weigh alternatives and choose the best solution

Difficulty: Easy

Learning Objective 1: LO 2.4 Discuss the roles of science and scientific thinking is societal decision-making.

Section Reference 1: Section 2.4 Misunderstandings About Science and Society

47) Marvin is stressed about waking up and making it on time to his first day of physics class. He sets the alarm on his digital watch (accurate to 1/100 of a second!) and arrives at 9:00:00.00 a.m. Unfortunately, every other clock on campus reads about 9:10. Marvin is woefully late and goes on to become an Art History major. What can be said about the accuracy and precision of Marvin’s watch?

Answer: Accuracy – not very accurate; Precision – very precise

Difficulty: Medium

Learning Objective 1: LO 2.3 Discuss uncertainty, accuracy, and precision in measurement.

Section Reference 1: Section 2.3 Measurements and Uncertainty

48) Give an example from human history for the following statement: “Science leads to new technological developments, just as new technology leads to new scientific discoveries.”

Answer: Galileo studied the stars and became a source of new scientific knowledge. That knowledge stimulated the construction and use of telescopes.

Difficulty: Medium

Learning Objective 1: LO 2.4 Discuss the roles of science and scientific thinking is societal decision-making.

Section Reference 1: Section 2.4 Misunderstandings About Science and Society

49) Give an example of deductive reasoning.

Answer: e.g., A straight line is the shortest distance between two points. The line A-B is the shortest distance between the points A and B. Therefore A-B is a straight line.

Difficulty: Medium

Learning Objective 1: LO 2.2 Discuss observations, facts, inferences, and hypotheses in the scientific method.

Section Reference 1: Section 2.2 Observations, Facts, Inferences, and Hypotheses

50) You weigh flour on a scale to find out how much you need for baking cookies because your recipe calls for exactly 105.00 grams (otherwise your cookies will turn out like bricks). Yesterday the scale fell from the counter onto the floor and is now off by 10.25 grams. Will the measurement of your flour be both precise and accurate?

Answer: No, you will get a precise measurement, but not an accurate one.

Difficulty: Medium

Learning Objective 1: LO 2.3 Discuss uncertainty, accuracy, and precision in measurement.

Section Reference 1: Section 2.3 Measurements and Uncertainty