

# M\_PTQ\_TEAS7 (700+ Questions) - Quiz Questions with Answers

1.

The primary purpose of this passage is to:

Analyze an interesting feature of American cinema

Refute the Western paradigm

Suggest a way that war movies could be made better

Suggest that viewers think critically about underlying assumptions in the movies we watch

***Explanation:***

*The point of the passage is to suggest that viewers should think more critically about assumptions and frameworks (such as the Western paradigm) that lay the groundwork for the stories in movies they watch. The absence of questioning these assumptions and biases can lead to viewers absorbing world views that they may not agree with. An example the author gives is that it is hard to find a war movie in which the hero is not supremely morally worthy.*

2.

Which of the following substitutions best captures the meaning of the underlined words?

When the chancellor became engrossed in reading the day's intelligence, it was impossible for his subordinates to distract him with even the most important news.

Bothered by

Excited about

Occupied exclusively with

Confused by

***Explanation:***

*To engross is to capture one's full attention. To be occupied exclusively is another way of saying this, as occupied can mean attentiveness. While the chancellor could be distracted, excited, or confused by the information, none of these states require a person's full attention.*

3.

Which of the following statements offers a supporting argument for the passage's claim that many coastal islands are eroding?

Recent hurricane seasons have been expensive.

The Atlantic Basin is entering an active period.

Louisiana has lost 2,000 square miles of coastal land.

Barrier islands are the first line of defense against coastal storms.

***Explanation:***

*The loss of coastal wetlands in Louisiana is an example of coastal island erosion caused by hurricanes and so supports the statement. The other choices are also statements that appear in the passage, but they do not provide direct support for the claim that many coastal islands are eroding.*

4.

The passage describes recent hurricane seasons as the most expensive on record. Which of the following statements gives the implied reason for this increased expense?

Hurricane Katrina was an extremely violent storm.

Valuable buildings were destroyed in New Orleans.

The Atlantic Basin is entering an active period.

**Destruction of barrier islands and coastal wetlands has left the mainland exposed.**

***Explanation:***

*The passage attributes the increased expense to the loss of coastal barrier lands and exposure of the mainland. The fifth sentence states, "due to this exposure of coastal communities, recent hurricane seasons have been the most expensive on record." This establishes the cause-and-effect relationship between barrier island erosion and monetary losses due to great storms. While choices A, B, and C may be factual, they are not details given in the passage to explain the elevated expenses.*

5.

Which of the following choices represents the best label for this passage?

Definition essay

Cause/effect essay

Comparison essay

Persuasive essay

***Explanation:***

*The essay does not make comparisons or seek to define or persuade. Instead, this passage describes the role of coastal wetlands, gives examples of recent losses of these lands, and concludes these factors result in a substantial economic loss due to recent storms.*

6.

Which of the following claims is false, based on the passage above?

Hurricane seasons are more expensive now than they used to be.

Marshlands and wetlands help reduce the damage hurricanes cause.

The Atlantic basin is in an active storm period.

Almost 2,000 square miles of coastal land was lost during Hurricane Katrina.

***Explanation:***

*Choice D combines two different facts. Almost 2,000 square miles of coastal land has been lost in Louisiana over the past 70 years. Over 100 square miles of wetland were lost during*

*Hurricane Katrina, not 2,000. The other three answer choices, A, B, and C, are all true facts as stated in the passage.*

7.

As a result of Jewish people leaving Russia and Ukraine, the Jewish population of Poland increased dramatically. According to the chart, during which time span is this most likely to have occurred?

1816-1921

1939-1945

1945-1946

1951-1960

***Explanation:***

*The only dramatic increase indicated on the chart occurs between 1816 and 1921, when the Jewish population increases from fewer than 500,000 to more than 2,500,000. The population declined between 1939 and 1945, as well as between 1951 and 1960. There was a slight population increase between 1945 and 1946, but it cannot be described as dramatic.*

8.

During World War II, the Jewish population of Poland declined rapidly. Following the war, however, there was a brief period of population increase as Polish Jews returned home. According to the chart, when is this most likely to have occurred?

1939-1945

1945-1946

1946-1951

1951-1960

***Explanation:***

*From 1939, the Jewish population decreased steadily until the modern day, with the exception of a slight bump in population between 1945 and 1946. All other answer choices indicate a decline in population, not an increase.*

9.

Since the Jewish population declined drastically during World War II, which range of years is most likely when World War II occurred?

1816-1921

1939-1945

1946-1951

1951-1960

***Explanation:***

*The Jewish population in Poland is shown to be about 3,250,000 in 1939 and less than 250,000 in 1945. This shows a dramatic decrease in the population, so it is reasonable to conclude that*

*these are the years that World War II took place. Another drop is visible from 1946 to 1951, but this decrease in the population is slight, not drastic.*

10.

Mirella has recently become an ovo-lacto vegetarian, which means that she does not eat any kind of animal flesh but that she does eat eggs and dairy products. In fact, she prefers to consume either eggs or dairy products at every meal to ensure a good intake of protein. Additionally, Mirella has an allergy to wheat products, so she avoids any kind of bread. Which of the following menu items fulfills her dietary requirements?

Tofu, mushroom, and spinach lasagna

Veggie burger on a whole-grain bun

Salmon with cream sauce

**Stuffed baked potato with vegetable soup**

***Explanation:***

*The stuffed baked potato with vegetable soup best fulfills her requirements of no animal flesh, no bread, and possible addition of dairy. (In this case, the stuffed baked potato might have sour cream and cheese on it.) Choice A is questionable, particularly if the tofu takes the place of cheese in the lasagna; the question clearly states that Mirella prefers to consume eggs or dairy with every meal to ensure adequate protein intake. Choice B is incorrect because Mirella avoids bread products, and choice C is incorrect because Mirella does not eat fish.*

11.

Jensen has been assigned a project on ancient Greece, but the project terms are general. This means that he can select any topic of interest to him from Ancient Greece and focus his project around this. Jensen is overwhelmed and does not even know where to begin. What section of the library should he check first for general information about ancient Greece?

100

200

400

900

***Explanation:***

*Section 900 discusses history, so that is a safe starting point for Jensen. Section 100 focuses on philosophy, section 200 focuses on religion, and section 400 focuses on language, so these sections should be checked only after the history section.*

12.

The author claims that it is hard to find a US-made war movie that “presents the hero (usually the US) as anything other than supremely morally worthy.” What does this statement imply about the author?

She believes the hero should always appear to be morally worthy.

She believes the hero should never appear to be morally worthy.

She believes the hero should be more nuanced and less unconditionally good.

She believes the hero is an uninteresting character.

***Explanation:***

*In the passage, the author uses the example of a "supremely morally worthy" hero to explain a bias that viewers should be aware of and think critically about. The author's identification of this as a bias implies that she thinks it is not the right choice and that a hero who is more nuanced and less unconditionally good would be an improvement in US war stories.*

13.

During his study, Jenson finds himself increasingly drawn to information about the theaters of ancient Greece and particularly to the plays that the Greeks performed. What section of the library should he check next for more resources on the written plays that have survived from ancient Greece?

200

600

700

800

**Explanation:**

*Section 800 focuses on literature, and since Jensen is interested in the "written plays," this is the place to check for more information about Greek drama. Section 200 focuses on religion while section 600 focuses on science. Section 700 focuses on the arts, which could include theater as a performing art, but since the question specifically mentions Jensen's interest in written plays, answer choice C is incorrect.*

14.

Jenson also discovers that the meaning behind many of the plays was closely related to the polytheistic beliefs that were practiced in ancient Greece. What section of the library should he check for more information about Greek polytheism?

100

200

300

900

***Explanation:***

*Section 200 is the place to go for religion, so Jensen should check here for more about Greek polytheism. Sections 100, 300, and 900 are not relevant, as they cover philosophy, social sciences, and literature, respectively.*

15.

According to the map, which of the following was not commonly farmed or harvested along the East coast of the United States of America in 1900?

Hay and dairy

Woodlands/forests

Fruit

Mixed crops

***Explanation:***

According to the map's legend, or key, woodland and forest farming is represented by an icon of a tree with multiple branches. This icon does not appear along the Eastern coastline on this map. The icons for choices A and C and the shading for choice D are shown on the Eastern coastline, so these choices are incorrect.

16.

Why does the author suggest pinching out the top bud of the tomato plant when the seedlings are four or five inches in height?

To avoid over-crowding

To allow for more air flow

To avoid rotting

To strengthen the stem

**Explanation:**

The author states, "to make the stem stronger, pinch out the top bud when the seedlings are four or five inches in height." Therefore, the purpose of pinching out the top bud is to strengthen the stem. Choice B, increasing air flow, and choice C, avoiding rotting, are not mentioned in the passage, so neither of these is the correct answer. The passage does contain instructions for spacing plants a certain distance apart when they are older, but pinching out the bud is not described as a measure against overcrowding, so choice A is incorrect.

17.

According to the author, when should tomato plants be moved to their permanent positions?

After the second leaf makes its appearance

After the first fertilization

When the seedling starts to sprout

After they have grown to be 12 to 15 inches high

***Explanation:***

*According to the text, tomato plants should be moved to their permanent position after they have grown to be 12 to 15 inches high. The author recommends removing parts of the larger leaves at this time as well. Choice B, the first fertilization, and choice C, the seedling beginning to sprout, are not clearly mentioned in the passage, so these choices are incorrect. While the passage does give instructions for after the second leaf appears on a seedling, the next step is to transplant the plant to a new box, not to move it to its permanent position. Choice A is incorrect.*

18.

Identify a synonym for the term *fruiting* as used in the third paragraph.

Ripening

Decaying

Decomposing

Wilting

***Explanation:***

*The author is giving advice in an effort to “avoid a delay in fruiting.” Using context clues, we can determine that fruiting is something that we want to occur in a timely manner. The only answer choice that describes a desired part of the harvesting process is ripening; therefore, we can conclude that ripening is a synonym for fruiting.*

19.

Choose the option that best describes the author’s pattern of organization for the first two paragraphs.

Cause and effect

Problem and solution

**Sequential**

Persuasive

***Explanation:***

*The information is organized in a way that describes the step-by-step process for harvesting tomatoes. This type of text is described as sequential writing.*

20.

The author would most likely agree with which of the following statements?

**Unsupported plants should be set farther apart than supported plants.**

Freshly fertilized soil should be used when planting tomatoes.

Twine should be used to tie tomato vines to stakes.

Tomato harvesting should begin in May.

**Explanation:**

*In Paragraph 4, the author states "Plants grown on supports may be set two feet apart in the row, with the rows three or four feet apart depending upon the variety. Plants not supported by stakes or other methods should be set four feet apart." We can summarize this information to conclude that unsupported vines should be set farther apart than supported vines.*

21.

**When should parts of the longest leaves be removed?**

When improving the condition of the soil

After the last frost

**When transplanting plants to their permanent positions**

After the second leaf appears on the seedling

**Explanation:**

*The passage describes placing plants in their permanent positions at the beginning of paragraph two. In this paragraph, the passage says that parts of the longest leaves should be removed during this transplanting step. No instructions are described as taking place while the soil is being improved, so choice A is incorrect. Choice B describes the time that tomato plants should be ready for the garden. Choice D describes the time that seedlings should be transplanted to a second box.*

22.

Which of the following would be a good title for the passage?

**"An Overview of Vocational Counseling"**

"Why Students Need Vocational Counseling"

"The Duties of the Vocational Counselor"

"The Value of the Vocational Counselor"

***Explanation:***

*Choice A, "An Overview of Vocational Counseling," most accurately describes the content of the passage, so it is the correct choice. This passage describes the role of the vocational counselor and how vocational counseling benefits students. Since the passage covers several aspects of vocational counseling, choices B, C, and D would not be good titles because they are not broad enough to accurately describe the passage.*

23.

Which of the following is NOT an example given by the author of an element of the Western paradigm:

A hero highly skilled at warfare

An evil villain in black hat

**Everyone riding horses**

A community made up of upstanding citizens

**Explanation:**

*The author mentions a hero who is highly skilled at warfare, an evil villain in a black hat, and a community made up of upstanding citizens in the passage, referring to them as elements of the Western paradigm. The author said nothing about horseback riding.*

24.

According to the passage, the students who benefit most from vocational counseling tend to be:

Those who use evaluation instruments

Those who are honest about their interests

**Those who do not have a chosen profession**

Those who have a vocational counselor in their school

**Explanation:**

*The passage describes vocational counseling as a useful tool for students who are not sure what career they want to pursue, or do not have a chosen profession. Students who receive vocational counseling will likely have a vocational counselor at their school and may use evaluation instruments. These students should also be honest about their interests to receive the best results. However, these factors do not determine whether or not a student needs or would benefit from vocational counseling.*

25.

The main purpose of the passage is to:

Provide reasons to have vocational counselors on-site

Give positive and negative ideas about vocational counseling

Talk about evaluation instruments

**Describe what vocational counseling can do for students**

***Explanation:***

*This passage gives the reader basic information about vocational counseling and how it helps students. Choices A and B suggest that the purpose of the passage is to persuade readers to form an opinion or take action regarding vocational counseling. This is not the purpose of the passage, as it is expository. The purpose of the passage is also not to talk about evaluation instruments, as they are a detail mentioned only in the second paragraph.*

26.

Which of the magazines listed below would be the best fit for the following article?

*Parents magazine*

*Teen magazine*

*Discovery Science*

***High School Guidance Counselor***

***Explanation:***

*The passage discusses an increasing demand for employment in STEM fields and a decreasing interest in these jobs among high school graduates. Of the audiences for each of the listed magazines, high school guidance counselors are the most likely to be interested in this article and find this information useful. Parents and teenagers may be interested in information about STEM careers, but the passage is more relevant to high school guidance counselors who can use this information to guide students as they plan for the future. This information would not be appropriate for a science magazine because it is discussing a problem that is only partially related to the scientific community.*

27.

Does this passage support the claim that the number of trained STEM workers is decreasing? If so, how?

It supports the claim by predicting a lack of adequately trained workers.

**It supports the claim by citing a federally-commissioned study.**

It does not support the claim because it does not mention any sources.

It does not support the claim because federal studies don't count in academic research.

***Explanation:***

*This passage supports the claim that the number of trained STEM workers is decreasing by citing a federally-commissioned study. The last sentence of the passage states that the study concluded that the current STEM workforce is aging and that the number of applicants available to replace them is dwindling. Choice A is incorrect because predicting a lack of workers is part of the claim, not evidence for it. Choice C is incorrect because the passage cites the federal study as evidence. Choice D is incorrect because federal studies can be good sources for academic research.*

28.

Of the following sentences, which one uses metaphors to create figurative meanings?

He became a tiger in the boxing ring, but he turned into a house cat at dinner afterward.

He was like a tiger in the boxing ring, but later during dinner, he was just like a house cat.

He fought so fiercely in the boxing ring, but afterward at dinner he was gentle and kind.

He was ferocious when he was boxing, but he was sweet and gentle in social situations.

**Explanation:**

*This sentence uses two metaphors (implied comparisons): "He became a tiger" and "he turned into a house cat." These give readers more understanding of the subject he by comparing his qualities, characteristics, and/or behaviors to those of more familiar examples—in this case, to contrasting salient qualities of two different members of the same felid family. Choice B also makes this comparison using figurative language, but with similes (explicit comparisons) instead of metaphors. Choices C and D both use literal meanings rather than figurative ones.*

29.

Luciana is flipping through her new textbook on general chemistry. Her teacher told her the textbook contains a copy of the periodic table, but she can't remember if it's in the front of the book, the back of the book, or somewhere in between. Which text feature will help Luciana find the page number for the periodic table?

Table of Contents

Glossary

Index

## Tables

### ***Explanation:***

*The correct answer is choice A, the Table of Contents. A table of contents contains all the different sections in a book or textbook along with page numbers identifying where the section starts. A glossary, choice B, contains a list of difficult terms used in the book along with their definitions. Like the table of contents, the index, choice C, contains information on page numbers. However, the index tells you on what pages a particular word or phrase is used, not where different sections start. If Luciana tried to find where the periodic table is using the index, she would find a list of all the pages where the words periodic table are used, which would be quite a lot in a general chemistry textbook. Finally, tables, choice D, are features used to organize information on a page. They do not help the reader to understand the structure of the book as a whole.*

30.

**Which of the following stories would best represent the theme of good triumphing over evil?**

A man fails to complete a quest for his friends, but they still celebrate his return home.

Two enemies unite against a common foe and slowly become friends as they work together.

A woman becomes the advisor to a kind emperor, but later betrays and overthrows him.

**A cruel king is defeated by an honorable warrior who fights for the people of the kingdom.**

### ***Explanation:***

*The story described in choice D includes a good character who defeats an evil character, so this story would convey the theme of good triumphing over evil. Choices A and B do not fit this theme, as neither clearly shows both good and evil represented. Choice C shows an evil*

*character defeating a good character, so it shows a theme that is the inverse of the one described in the question.*

31.

The advertisement above shows the nutrition information for the new juice Power Fruit. Which conclusion can be made about Power Fruit?

Power Fruit contains the daily value of caffeine.

**Power Fruit provides all the vitamin C you need each day.**

Power Fruit has 100% daily value of vitamin A.

Power Fruit does not contain iron.

***Explanation:***

*The advertisement states that Power Fruit contains 110% of the daily value of vitamin C, which means that it meets the amount of vitamin C a person needs each day. The ad also states that Power Fruit contains 35 mg of caffeine, but according the ad this is only 9% of the daily value, not the full daily value. There is no mention of vitamin A or iron anywhere in the advertisement.*

32.

A school needs to purchase 500 composition textbooks and 500 world literature textbooks. Which of the textbook suppliers can offer the lowest price?

Textbook Mania

Textbook Central

Bookstore Supply

University Textbooks

**Explanation:**

*This question and the two that follow require simple multiplication and addition. Since the quantities needed are the same for both textbooks, the supplier with the lowest combined price per 100 books will be the correct answer. Textbook Central's combined price for 100 books of each kind is \$9,550. The closest competitor is University Textbook, with a combined price of \$9,600. The other two suppliers come in at \$9,650 and \$9,675. The total for the transaction with Textbook Central is \$47,750.*

33.

A school needs to purchase 1,000 composition textbooks and 300 linguistics textbooks. Which of the textbook suppliers can offer the lowest price?

Textbook Mania

Textbook Central

Bookstore Supply

University Textbooks

**Explanation:**

Once again, Textbook Central prevails. In this case, it is not even necessary to do the calculations. The cost for composition textbooks is \$4,350 (per 100) and for linguistics textbooks is \$6,550 (per 100). The lower cost for the composition textbooks outweighs the slight difference in cost for the linguistics textbooks.

34.

Which of the following is part of the world view, with which we may not agree, that the author implies we might absorb from these movies if we're careless and unquestioning:

Enemies of the US do not ever fight for legitimate causes.

The community is morally bankrupt.

The US is complex.

The US is not skilled at warfare.

**Explanation:**

*The author suggests that these movies rarely show enemies of the US to be complex or fighting for a legitimate cause. It is implied that this is a world view or bias that the author believes is incorrect, and one that we might absorb if we're careless and unquestioning.*

35.

A school needs to purchase 400 world literature textbooks and 200 technical writing textbooks. Which of the textbook suppliers can offer the lowest price?

Textbook Mania

Textbook Central

**Bookstore Supply**

University Textbooks

***Explanation:***

*Bookstore Supply has the lowest cost of the four for the technical writing textbooks, and it has a comparable cost to University Textbook for the world literature textbooks. Bookstore Supply and University Textbook both provide the lowest price for world literature textbooks. However, Bookstore Supply has the lowest price overall for technical writing textbooks, which makes it the best choice for the lowest price.*

36.

**Which of the following statements is an opinion?**

Despite the progression of the internet, printed media is still very popular in the forms of both fiction and non-fiction books.

**Although some people may say that the act of reading is not complete without turning a page, sliding a finger across the screen or pressing a button to read more onto the next page is just as satisfying to the reader.**

With the invention of the internet, reliance on books for information quickly changed.

For the last several centuries, books have been at the forefront of education and entertainment.

***Explanation:***

*It is not a fact that "sliding a finger across the screen or pressing a button to move onto the next page is just as satisfying to the reader." Satisfaction is not something universal that can be proven for every reader. This statement is an opinion. Choices A, C, and D are facts that can be proven.*

37.

Which of the following cannot be a primary source?

A textbook

An ancient artifact

An autobiography

A survey

***Explanation:***

*Textbooks are not primary sources because they discuss information that has been observed, synthesized, or otherwise developed by someone else. Most ideas in textbooks are not original; they are taken from other sources. Choices B and C are primary sources because they are original works that provide information directly from the person who created them. Choice D is a primary source because it compiles participants' responses without analyzing or modifying the original information.*

38.

Which of the following is a theme conveyed by both of these passages?

Nature is more dangerous than it is beautiful.

Sometimes trusting one's instincts is better than being practical.

**Man is not above nature and should respect it.**

A deeper meaning can be identified anywhere, even in nature.

***Explanation:***

*Both excerpts convey that man is not above nature and must have respect for nature. In the first passage, the narrator questions the man's logic and practical thinking and remarks on his susceptibility to extreme natural conditions. The poem, the second passage, is narrated by nature and describes the ways that nature can be violent, as if nature is threatening man. Neither passage discusses the beauty of nature. The poem does not comment on instincts, practical thinking, or deeper meanings found in nature.*

39.

**What is one difference between how the story and the poem convey theme?**

**The passage focuses on man's perspective, while the poem is told from nature's perspective.**

The passage mentions some dangers of nature, but the poem does not.

The passage uses figurative language, but the poem does not.

The passage mentions all seasons, but the poem only mentions the dangers of winter.

***Explanation:***

*The passage describes a man's thoughts and response to extreme natural conditions. The speaker of the poem is nature. This difference is described in choice A. Both passages mention*

*the dangers of nature. The poem does use figurative language, as its speaker is nature, personified. The passage only mentions winter, so choice D is incorrect.*

40.

Follow the instructions below to transform the starting word into a different word.

- Start with the word PREVARICATE.
- Remove the P.
- Replace the first A with the final E.
- Remove the I from the word.
- Remove the C from the word.
- Remove the A from the word.

What is the new word?

REVEST

REVERT

REVIEW

REVERSE

***Explanation:***

*When the directions are followed correctly, the new word is REVERT. The words REVEST and REVERSE require the addition of an S. REVERSE also requires a second E. The word REVIEW requires the addition of an I, which has been removed, and a W.*

41.

Which of the following does NOT describe the author's tone?

Authoritative

Serious

Earnest

**Neutral**

***Explanation:***

*The author clearly has an opinion about the issue discussed in the passage and asserts that readers should respond to the passage a certain way, so the author's tone is not neutral. The author clearly expresses his or her ideas and urges readers to consider and think critically about the media they consume, so the tone can be described as serious or earnest. The author makes statements and uses examples to show why his or her message is correct and suggests reasons why the audience should accept it, so the tone may also be described as authoritative.*

42.

According to the advertisement, which of the following is true?

Candidates must have three or more years litigation experience.

Candidates will have small caseloads.

**Candidates must be members of the California State Bar Association.**

The position is not currently available.

**Explanation:**

*The ad notes in the second sentence that candidates must be members of the California State Bar Association. In the bullet points, the ad states that at least 3 years of litigation experience is ideal, not required, and that large caseloads are expected to be managed, not small caseloads; this eliminates choices A and B. Just above the address, the ad claims that the position is available immediately, therefore eliminating choice D.*

43.

**A competitive salary is one that is**

Much less than salaries offered for comparable jobs

Much greater than salaries offered for comparable jobs

**Similar to the average salary offered for comparable jobs**

Impossible to compare to the salaries offered for comparable jobs

**Explanation:**

*A competitive salary is a salary that is similar to the average salary offered for comparable jobs. When a company offers a salary that is much lower or much higher than the average, the salary is no longer in a range that is competitive; it is essentially considered either too high to refuse or too low to accept.*

44.

**It can be inferred from the advertisement that**

**A person staffing this position may work independently and/or as part of a team.**

Veronica Davis will make the hiring decisions.

Caseloads will start out small for new hires.

A candidate could work part-time if he or she chose to.

***Explanation:***

*Since the ad suggests that candidates should be able to work in a self-directed capacity and as part of a team, it can be inferred that they might have both those work experiences, not choose one or the other. Nothing is noted about new hires receiving smaller caseloads, eliminating choice C. Choice D can be eliminated because the name listed in the ad is Veronica Smith, not Veronica Davis.*

45.

Jeffrey has been assigned a project for which he must read a biography of Thomas Jefferson and then write a report on his life. The project is due in ten days. Which of the following actions should Jeffrey take first?

Find an encyclopedia article on Thomas Jefferson and use the information contained in it as the basis of the report.

**Locate a biography of Thomas Jefferson at the school library, and begin reading it and taking notes.**

Order a copy of the shortest biography of Thomas Jefferson available for purchase; the book ships in 1 week.

Watch a documentary on the life and legacy of Thomas Jefferson, and make a list of the key events in which he was involved.

**Explanation:**

Quickly locating a biography and getting started on reading it and making notes is the best first step for Jeffrey. Since the assignment is not just to write a paper but also to read a biography, Jeffrey cannot simply base his paper on an encyclopedia article (A). Similarly, he cannot use a documentary (D) as his primary source of information. Waiting at least a week (C) for a book to arrive, even if it means he has to spend less time reading, is unwise given that the assignment is due in just ten days.

46.

A taxi service charges \$5.50 for the first — of a mile, \$1.50 for each additional — of a mile, and 20¢ per minute of waiting time. Joan took a cab from her place to a flower shop 8 miles away, where she bought a bouquet, then another 3.6 miles to her mother's place. The driver had to wait 9 minutes while she bought the bouquet. What was the fare?

\$20

\$120.20

\$92.80

\$91

**Explanation:**

The total distance traveled was . The first — of a mile is charged at the higher rate. Since — , the remainder of the trip is 11.4 miles. Thus, the fare for the distance traveled is computed as . To this the charge for waiting time must be added, which is simply ¢ ¢ . Finally, add the two charges,

47.

What is the range of weights in the sample?

48 lb

60 lb

100 lb

70 lb

**Explanation:**

*The range of weights is the difference between the maximum weight and the minimum weight. The maximum weight for a plant occurs at 70 inches and the minimum weight occurs at 22 inches. So, the range of weights is:*

48.

Which statement best describes the graph of the scatter plot?

A decrease in the height of a plant results in an increase in the plant's weight.

An increase in the height of a plant results in an increase in the plant's weight.

The average weight of a plant is 20 pounds.

There appears to be no association between a plant's height and weight.

**Explanation:**

Each point in the scatter plot can be represented by the ordered pair  $(x, y)$ . As the height coordinates for the points increase, the corresponding weight coordinates also increase. So, we can say an increase in the height of a plant results in an increase in the plant's weight.

49.

What kind of correlation does the graph of the scatter plot appear to have?

An inverse correlation between a plant's height and weight.


A negative linear correlation between a plant's height and weight.

**A positive linear correlation between a plant's height and weight.**

There is no correlation between a plant's height and weight.

**Explanation:**

The line through the scatter plot shown below is called the line of best fit.

 graphic for question

A line of best fit is a line that shows the best relationship between a plant's height and weight. Thus, the relationship between the height and weight is linear. The slope of the line is positive, which means we can also say there is a positive correlation (an increase in the height of a plant results in an increase in the plant's weight).

50.

If Louis travels on his bike at an average rate of 20 mph, how long will it take him to travel 240 miles?

48 hours

12 hours

20 hours

8 hours

**Explanation:**

*This problem can be solved by setting up equivalent proportions of miles per hour, then cross multiplying and isolating .*

— —

*Therefore, it would take Louis 12 hours to travel 240 miles.*

51.

What is the area of a rhombus having diagonals of 5 cm and 8 cm?



**Explanation:**

The area,  $A$ , of a rhombus is  $\frac{1}{2}d_1d_2$ , where  $d_1$  and  $d_2$  are the two diagonals of the rhombus. Let  $d_1 = 10$  and  $d_2 = 8$ .

\_\_\_\_\_

52.

Which of the following is listed in order from *greatest to least*?

— — —

— — —

— — —

— — —

**Explanation:**

First, convert the fractions to decimals by dividing their numerators by their denominators:  $\frac{1}{2} = 0.5$ ,  $\frac{4}{5} = 0.8$ , and  $\frac{875}{1000} = 0.875$ . The tenths place can be used to compare all three decimals. 0.5 has the smallest tenths place, so it is the smallest decimal. Since 0.8 and 0.875 share the same tenths place, look at their hundredths place. 0.80 is the same as 0.8, so 0.875 is larger than 0.80 because it has a larger hundredths place. The negative integers are smallest when the absolute value is greatest. Thus, the sequence for choice B is written in order from greatest to least:  $-10, -5, -2$ .

53.

Which of the following inequalities represents the scenario in which Joshua qualifies for an academic scholarship?

**Explanation:**

In order to qualify for an academic scholarship, Joshua must earn more than 92 points. Since each question is worth 4 points, and  $x$  represents the number of questions he answers correctly, the number of points he earns is  $4x$ . The number of points must be more than 92, so the inequality that represents Joshua qualifying for the academic scholarship is  $4x > 92$ .

54.

What is the minimum number of test questions Joshua must answer correctly in order to qualify for an academic scholarship?

**Explanation:**

Joshua must earn more than 92 points on the test in order to qualify for the scholarship. To solve this problem, determine the number of questions that he would need to answer correctly to earn exactly 92 points, and then round up (if the answer is not a whole number) or add one (if the answer is a whole number). Divide 92 by 4: — . Joshua can earn exactly 92 points by answering 23 questions correctly, so he must answer more than 23 questions in order to qualify. Since the result was a whole number, add one to get the number of questions he must answer: . Joshua must answer 24 questions correctly in order to qualify for the scholarship.

55.

Below is the graph of a histogram showing the income distribution for 1,000 adults.

 graphic for question

The mean income for the adults is \$118,000. Which of the follow best describes how the income is distributed?

The distribution of income is left skewed.

The distribution of income is normally distributed.

The distribution of income is right skewed.

The distribution of income is not skewed.

**Explanation:**

*The mean for the set of data is to the right of the bar with the greatest length in the histogram. A histogram is said to be right skewed whenever the bars tend to have the greatest lengths to the left of its graph.*

56.

What is the simplest way to write the following expression?

**Explanation:**

*Rearrange the expression to group like terms together.*

*Add the coefficients of the  $x$ -terms together:*

*Add the coefficients of the  $y$ -terms:*

*Therefore, the equation simplifies to*

57.

In the winter of 2006, 35.6 inches of snow fell in Chicago, IL. The following winter, 60.3 inches of snowfall fell in Chicago. What was the percent increase of snowfall in Chicago between those two winters?

69.4%

59.0%

41.0%

24.7%

**Explanation:**

Percent increase is calculated with the formula  $\frac{\text{New Value} - \text{Old Value}}{\text{Old Value}} \times 100$ . In this case, the percent change is calculated as  $\frac{100 - 30.6}{30.6} \times 100 = 69.4\%$ .

58.

Four nurse midwives open a joint practice together. They use a portion of the income to pay for various expenses for the practice. Each nurse midwife contributes \$2,000 per month. One of them allocates  $\frac{1}{4}$  of her funds to pay an office administrator and another  $\frac{1}{5}$  for office supplies. What is the total fraction of her budget that is spent on the office administrator and office supplies?

$\frac{1}{4}$

$\frac{1}{5}$

$\frac{1}{4}$

$\frac{1}{5}$

**Explanation:**

The second midwife allocates  $\frac{1}{2}$  of her funds for an office administrator plus another  $\frac{1}{3}$  for office supplies. We need to add  $\frac{1}{2}$  and  $\frac{1}{3}$  by first finding a common denominator.

$\frac{1}{2} + \frac{1}{3} = \frac{\quad}{\quad}$

Now, simplify  $\frac{\quad}{\quad}$  by dividing the numerator and denominator by their greatest common factor, which is 2.

$\frac{\quad}{\quad} = \frac{\quad}{\quad}$

59.

If 35% of a paycheck was deducted for taxes and 4% for insurance, what is the total percentage taken out of the paycheck?

20%

31%

39%

42%

**Explanation:**

When the word "total" is used, often you are being asked to find the sum of two things. To find the sum of the percentages, simply add them together:

60.

Bob decides to go into business selling lemonade. He buys a wooden stand for \$45 and sets it up outside his house. He figures that the cost of lemons, sugar, and paper cups for each glass of lemonade sold will be 10¢. Which of these expressions describes his cost for making  $n$  glasses of lemonade?

**Explanation:**

Each glass of lemonade costs 10¢, or \$0.10, so that glasses will cost . To this, add the amount Bob initially spent on the wooden stand, \$45, giving the expression in choice A.

61.

Which of the following is equivalent to ?

**Explanation:**

To simplify an expression, follow the order of operations (PEMDAS). Start by multiplying and dividing in order from left to right and then add from left to right.

62.

The ratio of employee wages and benefits to all other operational costs of a business is  $\frac{2}{5}$ . If a business's operating expenses are \$130,000 per month, how much money does the company spend on employee wages and benefits?

\$43,333.33

\$86,666.67

\$52,000.00

\$78,000.00

**Explanation:**

When you have a ratio, you can find the fraction that each part of the ratio is of the whole by putting it over the sum of the parts. In other words, since the ratio of wages and benefits to other costs is  $\frac{2}{5}$ , the amount of money spent on wages and benefits is  $\frac{2}{5}$  of total expenditures.

—

63.

Given the table below, which of the following describes the relationship between  $x$  and  $y$  ?

$x$  1 2 3 4 5 6

$y$  5 2 -1 -4 -7 -10

Multiply  $x$  by 2 and subtract 4

Multiply  $x$  by 2 and subtract 3

Multiply  $x$  by -3 and add 8

Multiply  $x$  by -4 and add 1

**Explanation:**

The equation that represents the relationship between  $x$  and  $y$  is  $y = -3x + 8$ . Notice each  $x$ -value is multiplied by -3, with 8 added to that value to get the  $y$ -value. Substituting 1 for  $x$  gives  $y = -3(1) + 8 = 5$ . Substituting the remaining  $x$ -values gets their corresponding  $y$ -values shown in the table.

64.

What is the value of  $x$  in the following equation?

—

—

**Explanation:**

To isolate  $x$ , subtract 29 from both sides.

65.

You are putting a new rug in your bedroom. The length of the rug can be no longer than 15 feet. When you are purchasing the rug at the store, the measure on it states that it is 5 meters long. Will the length of the rug fit in your bedroom? Why or why not?

No, because the length of the rug is 5 yd, and the length of the bedroom is 4.57 yd

Yes, because the length of the rug is 4.57 yd, and the length of the bedroom is 5 yd

**No, because the length of the rug is 5.47 yd, and the length of the bedroom is 5 yd**

Yes, because the length of the rug is 5 yd, and the length of the bedroom is 5 yd

**Explanation:**

A meter is a metric unit of measure. A yard is a standard unit of measure. We can convert the given length of the rug to a standard unit of measure to see if its length will fit in the bedroom. Use the unit conversion factor of  $1 \text{ meter} \approx 1.0936 \text{ yards}$  to convert meters to yards.

To begin, convert the length of the rug given in meters to yards by multiplying it by the conversion factor.

\_\_\_\_\_

So, the rug is 5.47 yards.

Now, convert the length of the bedroom from feet to yards. There are 3 feet in 1 yard, so:

\_\_\_\_\_

Therefore, the length of the bedroom is 5 yards. Since the length of the rug is greater than the length of the bedroom, it will not fit in the bedroom.

66.

A bushel of apples is delivered to a grocery store. To estimate the range of weights, in grams, of all of the apples in the bushel, a sample of 10 apples are weighed. The weights are shown below.

75, 98, 82, 72, 85, 79, 91, 81, 93, 72

What is the range of the weights of the sample of apples?

26

23

72

82.8

**Explanation:**

The range for a set of data is the difference in the maximum value in the data set and the minimum value. While it is not necessary to order the data from least to greatest (or greatest to least), it is sometimes easier to see what the minimum and maximum values are. Arranging the weights of the apples from least to greatest, we have:

*The minimum value is 72 and the maximum value is 98, so the range is:*

*Thus, the range of weights of the sample of apples is 26 grams.*

67.

The wait times, in minutes, for a group of people that are put on hold when calling customer service is given below.

12, 10, 18, 7, 7, 9, 11, 8, 7, 8, 13

What is the mean wait time, in minutes, for a person in the group that is put on hold?

9

10

13

7

**Explanation:**

*The mean (or average) for a set of data is the sum of the values in the set divided by the number of values in the set. There are 11 wait times, so the mean is:*

\_\_\_\_\_

*So, the mean wait time for the group is 10 minutes.*

68.

How many times does the person yawn for entire the week?

1

7

28

30

**Explanation:**

Since each  $X$  in the plot represents a time the person yawns, we need to count the total number of  $X$ 's in the plot to find the total number of times the person yawns that week. Adding the  $X$ 's in each column, we get:

69.

What is the range of the number of times the person yawns in a day during the week?

7

6

1

28

**Explanation:**

*The range is the difference between the maximum number of times a day the person yawns and the minimum number of times a day the person yawns. The maximum number of times occurs on Monday and the minimum occurs on Friday. So, the range is:*

70.

What percentage of the number of times does the person yawn on Wednesday?

1%

10%

30%

50%

**Explanation:**

*The person yawns three times on Wednesday. The person yawns a total of 30 times for the entire week. Therefore, the percentage of the number of times the person yawns on Wednesday is:*

—

71.

What is the circumference of a circle that has a diameter of 3 m? (Use 3.14 for  $\pi$ ).

28.26 m

7.065 m

9.42 m

18.84 m

**Explanation:**

The circumference,  $C$ , of a circle is  $C = 2\pi r$  where  $r$  is the radius. The diameter,  $d$ , is twice the radius,  $d = 2r$ , so we could find its circumference using  $C = \pi d$ .

72.

A metallic billboard is to be constructed in the shape of an isosceles trapezoid. The outline of the billboard is shown below.

 graphic for question

What amount of metal is needed to construct the billboard?

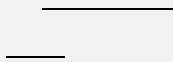
**Explanation:**

To find the amount of metal needed, we need to find the area,  $A$ , of a trapezoid. This is given by the equation  $A = \frac{1}{2}(b_1 + b_2)h$ , where  $b_1$  and  $b_2$  are the bases of the trapezoid and  $h$  is the height of the trapezoid.

Let  $h$  be the height for the trapezoid. Since we have an isosceles trapezoid, we can draw a second altitude as shown in the diagram below to find the length of the second base.

 graphic for question

The height is perpendicular to the bases, so  $h = 10$ . Now, the area of the trapezoid is:



To construct the billboard,  $100$  of metal is needed.

73.

Which of the following fractions is halfway between  $-\frac{1}{2}$  and  $-\frac{3}{4}$ ?

$-\frac{1}{4}$

$-\frac{5}{8}$

$-\frac{7}{8}$

$-\frac{2}{3}$

**Explanation:**

To find a number halfway between two numbers, take the average of the numbers. The average of numbers is found by adding those numbers and dividing by how many numbers there are. In this case, add  $-\frac{1}{2}$  and  $-\frac{3}{4}$  and then divide by 2.

In order to add  $\frac{1}{5}$  and  $\frac{1}{9}$ , a common denominator must be found. The least common multiple of 5 and 9 is 45, so convert both fractions to ones with denominators of 45.

\_\_\_\_\_

Now, add the fractions.

\_\_\_\_\_

Then, divide by 2, which is the same as multiplying by  $\frac{1}{2}$ .

\_\_\_\_\_

Therefore,  $\frac{1}{9}$  is halfway between  $\frac{1}{10}$  and  $\frac{1}{8}$ .

74.

The area of a circular disk is  $125.6 \text{ in}^2$ . What is the circumference of the disk? (Use 3.14 for  $\pi$ ).

10 in

31.4 in

62.8 in

125.6 in

**Explanation:**

To find the circumference of the circular disk, we need to use the formula for finding the circumference of a circle,  $C = 2\pi r$ , where  $r$  is the radius of the circle.

Since we are given the area of the disk, we can use  $A = \pi r^2$  to find the radius. Substituting the area and solving for  $r$ , we get:

\_\_\_\_\_

So, the circumference of the circular disk is:

75.

The value of \_\_\_\_\_ is closest to what number?

45

450

4,500

45,000

**Explanation:**

Since we are asked to determine which answer choice is closest to the expression, we can round each number in the expression to the nearest whole number before performing the required operations. The value of the number in the tenths place for 374.2 is 2, so it rounds down to 374; for 5.73 it is 7, so it rounds up to 6; and for 45.631 it is 6, so it rounds up to 46. Now, simplifying our expression to the nearest whole number with the rounded numbers, we get:

\_\_\_\_\_

The answer choice closest to 49 is 45.

76.

A sample of 11 students is taken to determine the approximate number of hours of sleep students at a school get for a given night. The amount of sleep the students in the sample get is given below.

8, 7.5, 5, 6, 8.2, 7.5, 6, 8.5, 6, 7.2, 5.5

What is the mode of this set?

6.9

7.2

5

6

**Explanation:**

*The mode is the value that is displayed most frequently in a set of data. Since we want to know which number of hours of sleep most of the sample of students got, we need to find the mode for the set of data. We can order the data from least to greatest (or greatest to least) to more easily see which number in the set occurs most frequently. Ordering the set of numbers from least to greatest, we have:*

*We can see the number 6 occurs three times in the set, so the mode of the set is 6.*

77.

You purchased a shirt for \$28, a pair of pants for \$42, and a belt for \$18 at a clothing store. You have a coupon for \$12 to use on your purchase. Which of the following is the best estimate for how many dollars you actually need to spend?

\$80

\$70

\$76

\$90

**Explanation:**

Remember, when estimating it is important to round prior to performing the operations. So, before adding the three numbers, we can round each dollar amount to the nearest tens place to find our estimate. The value of the number in the ones place value for 28 is 8, so it rounds up to 30; for 42 it is 2, so it rounds down to 40; for 18 it is 8, so it rounds up to 20; and for 12 it is 2, so it rounds to 10. Subtracting the value of the coupon from the sum total rounded purchase, we have:

Therefore, your estimated total spent is \$80.

78.

Maria paid \$28.00 for a jacket that was discounted by 30%. What was the original price of the jacket?

\$36.00

\$47.60

\$40.00

\$42.50

**Explanation:**

If  $x$  represents the original price of the jacket and  $y$  represents the discounted amount, then  $x - y = 40$  and  $x = 1.2y$ . Substitute  $1.2y$  for  $x$  and solve the resulting equation for  $y$ .

\_\_\_\_\_

Therefore, the original price of the jacket was \$40.00.

79.

The gas tank in a lawn mower holds up to one liter of gasoline. The gas can used to fill the gas tank of the mower is measured in gallons. Given that there are approximately 3,785 milliliters in a gallon of water, how much of a gallon of gas is needed to fill an empty gas tank of the lawn mower?

0.26 gal

0.20 gal

3.79 gal

1.90 gal

**Explanation:**

To convert liters to gallons, first convert milliliters to liters. Converting from one metric unit to another requires moving the decimal point in the given measurement to the left or right to determine the value for the required metric unit. The table below shows the prefixes of some of the more common metric units involving volume.

Prefix      kilo-    hecto-    deka-                      deci-    centi-    milli-

Symbol      k      h      da                      d      c      m

### Unit Measure

When converting a given metric unit that has a smaller unit of measure than the required metric unit, we can move the decimal point for the number having the smaller metric unit the same number of places to the left that it takes to get to the larger metric unit in the table. Since the milliliter metric unit is three places from the liter metric unit, we can move the decimal point that is at the end of 3,785 mL three places to the left to convert it to liters.

So,

Alternatively, we could multiply 3,785 mL by a power of ten to the negative third power to get:

\_\_\_\_\_

Thus, there are approximately 3.785 liters in one gallon of water so,

Then, to see how much of a gallon of water is in one liter, divide both sides of the equality above by 3.785.

\_\_\_\_\_

To the nearest hundredth of a gallon, a liter of water is 0.26 gallons.

80.

Three roommates decided to combine their money to purchase a single birthday gift for the fourth roommate. The first roommate donated \$12.03. The second roommate contributed \$11.96, and the third roommate gave \$12.06. Estimate the total amount of money the roommates used to purchase the gift.

\$34

\$35

\$36

\$37

**Explanation:**

To estimate a total, round each number before adding them. For this problem, we will round each number to the nearest dollar. \$12.03 rounds to \$12 because  $0.03 < 0.5$ , \$11.96 rounds to \$12 because  $0.96 > 0.5$ , and \$12.06 rounds to \$12 because  $0.06 < 0.5$ .

81.

Elijah drove 45 miles to his job in an hour and ten minutes in the morning. On the way home in the evening, however, traffic was much heavier and the same trip took an hour and a half. What was his average speed in miles per hour for the round trip?

30 mph

32.5 mph

33.75 mph

45 mph

**Explanation:**

To determine this, first determine the total distance of the round trip. This is twice the 45 miles of the one-way trip to work in the morning, or 90 miles. Then, to determine the total amount of time Elijah spent on the round trip, first convert his travel times into minutes. One hour and ten minutes is the same as 70 minutes, and an hour and a half is 90 minutes. So, Elijah's total travel

time was \_\_\_\_\_  
minute:

. Elijah's average speed can now be determined in miles per

Finally, to convert this average speed to miles per hour, multiply by 60, since there are 60 minutes in an hour:

82.

The cost, in dollars, of shipping \_\_\_\_\_ computers to California for sale is \_\_\_\_\_. The amount received when selling these computers is \_\_\_\_\_ dollars. What is the least number of computers that must be shipped and sold so that the amount received is at least equal to the shipping cost?

10

15

20

25

**Explanation:**

Setting the cost of shipping equal to the amount received gives us the equation

\_\_\_\_\_. Subtract \_\_\_\_\_ from both sides to get \_\_\_\_\_, then divide both sides by 300 to see that \_\_\_\_\_.

83.

For what reason is repetition important to scientific inquiry?

It is the only way to prove that an experiment is valid.

It adds to the number of statistics supporting the concept.

It assists the scientist in determining which data to consider.

It requires many groups of investigators working on a project.

***Explanation:***

*Repetition is the only way to prove that an experiment is valid. If an experiment can't be successfully repeated with the same outcome, one cannot determine that the experimental results are valid. Repetition is the key to scientific progress.*

84.

Which of Mendel's laws corresponds to the ability to study alleles of two or more different genes at the same time?

Law of segregation

**Law of independent assortment**

Incomplete dominance

Codominance

***Explanation:***

*The law of independent assortment states that one allele does not influence the allele of another gene. For example, the gene for eye color does not skew the results for the gene for hair color—these occur independently.*

85.

What is the first step in creating an experiment?

**Have an observation and then construct a hypothesis**

Gather supplies for the experiment

Perform the experiment

Build whatever is needed for the experiment

***Explanation:***

*An observation must be made about something to then construct a testable hypothesis to answer the question. Once a hypothesis is in place a person can then determine how to test their hypothesis. The methods for the experiment may involve gathering supplies you do not already have or building something to help test the experiment. Once the methods and materials are in place, the experiment can be conducted.*

86.

The center of an atom is called the \_\_\_\_\_. It is composed of \_\_\_\_\_.

**nucleus; protons and neutrons**

nucleus; protons and electrons

electron cloud; electrons and protons

electron cloud; electrons and neutrons

***Explanation:***

*The center of an atom is known as the nucleus. It is composed of protons and neutrons. The nucleus is positively charged due to protons having a positive charge and neutrons being electrically neutral.*

87.

Which statement regarding the respiratory system is correct?

The pharynx consists of elastic bands that vibrate and produce sounds when air passes through them.

The trachea is the flap that blocks food from the lungs by descending over the throat during a swallow.

**The vocal cords are located in the larynx, which lies between the pharynx and trachea.**

The epiglottis is the termination point of the trachea.

***Explanation:***

*The vocal cords are located in the larynx. These elastic bands vibrate and produce sound when air passes through them. The larynx lies between the pharynx and the trachea. The pharynx is the section of the throat that extends from the mouth and the nasal cavities to the larynx, at*

which point it becomes the esophagus. The trachea is the tube running from the larynx down to the lungs, where it terminates in the bronchi. The epiglottis is the flap that blocks food from the lungs by descending over the trachea during a swallow.

88.

Which of the following is needed for an experiment to be considered successful?

A reasonable hypothesis

A well-written lab report

Data that others can reproduce

Computer-aided statistical analysis

**Explanation:**

*For an experiment to be considered successful, it must yield data that others can reproduce. Choice A may be considered part of a well-designed experiment. Choices B and D may be considered part of an experiment that is reported on by individuals with expertise.*

89.

In the human skeleton, which of the following lists some of the vertebrae in descending order?

Atlas, axis, thoracic, lumbar, sacral, coccyx

Axis, sacral, coccyx, atlas, lumbar, thoracic

Thoracic, sacral, lumbar, axis, coccyx, atlas

Coccyx, lumbar, axis, sacral, thoracic, atlas

**Explanation:**

*From highest to lowest, the atlas is cervical vertebra 1, supporting the skull; the axis is cervical vertebra 2; next come cervical vertebrae 3 through 7, the bones in the back of the neck, which are omitted in all choices; then the 12 thoracic vertebrae are the upper back bones; below these are the 5 lumbar vertebrae in the lower back; the 5 sacral vertebrae (together, the sacrum) are the pelvic and hip-level back bones; and the coccyx or tailbone at the bottom of the spine contains 305 small bones, which are often fused together.*

90.

In a cross between bean plants with red ( ) wrinkled ( ) seeds ( ) and white ( ) smooth ( ) seeds ( ), the progeny are all red and wrinkled ( ). If a dihybrid cross occurs (the plants are self-fertilized), what fraction of the will also be red and wrinkled?

All of them

1/4

1/2

9/16

**Explanation:**

*Dihybrid crosses created a 9:3:3:1 ratio, therefore 9/16 chance the offspring will be red and wrinkled. There is a 3/16 chance the offspring will have either red and smooth seeds or white*

and wrinkled seeds. There is only a 1/16 chance the offspring will have white and smooth seeds.

91.

If an atom has a neutral charge, what must be true of the atom?

The nucleus contains only neutrons and no protons.

The atomic mass is equal to the number of neutrons.

The atomic number is equal to the number of neutrons.

**The atomic number is equal to the number of electrons.**

***Explanation:***

*An atom has a neutral charge if its atomic number is equal to its number of electrons. The atomic number (Z) of an element refers to the number of protons in the nucleus. If an atom has fewer or more electrons than its atomic number, then it will be positively or negatively charged, respectively. Cations are positively charged ions; anions are negatively charged ones.*

92.

When both parents give offspring the same allele, the offspring is \_\_\_\_\_ for that trait.

heterozygous

**homozygous**

recessive

dominant

**Explanation:**

*When both parents give offspring the same allele, the offspring is homozygous for that particular trait.*

93.

Which of the following represents a chemical change?

Sublimation of water

**A spoiling apple**

Dissolution of salt in water

Pulverized rock

**Explanation:**

*A spoiling apple is an example of a chemical change; in this case, oxidation. During a chemical change, one substance is changed into another. Sublimation of water refers to the conversion between the solid and the gaseous phases of matter, with no intermediate liquid stage. This is a phase change, not a chemical reaction. Dissolution of salt in water refers to a physical change since the salt and water can be separated again by evaporating the water. Pulverized rock is an example of a physical change where the form has changed but not the substance itself.*

94.

What is the function of the Golgi apparatus?

It contains the cell's genetic material.

It helps maintain the cell's shape and structural integrity.

**It prepares proteins and other large molecules for transport to other parts of the cell.**

It is responsible for cellular metabolism, producing the energy used by other organelles.

***Explanation:***

*The Golgi apparatus is sometimes called the cell's "mailroom" or "shipping department." Proteins and other large molecules produced in the endoplasmic reticulum are brought to the Golgi apparatus, where they are modified and packaged for transport elsewhere in the cell. The cell's genetic material is contained in the nucleus. The cell's shape and structural integrity are due mainly to the cell membrane and the cytoskeleton. Cellular metabolic processes take place in the mitochondria.*

95.

Electrons with greater amounts of energy are found \_\_\_\_\_ the nucleus than electrons with less energy.

closer to

**farther from**

more often inside

more randomly around

**Explanation:**

*Electrons with greater amounts of energy are found farther from the nucleus than electrons with less energy. The principal quantum number describes the level or shell that an electron is in. The lower the number, the closer the electron is to the nucleus and the lower it is in energy.*

96.

Which of the following is true of an isotope?

It has a different number of protons than its element.

It has a different number of electrons than its element.

It has a different charge as compared to its element.

It has a different number of neutrons than its element.

**Explanation:**

*An isotope is a variation of an element that has a different number of neutrons. The element and its various isotopes continue to have the same numbers of protons and electrons. For example, carbon has three naturally occurring isotopes, carbon-12, carbon-13 and carbon-14, which is radioactive. Isotopes of an element differ in mass number, which is the number of protons and neutrons added together, but have the same atomic number, or number of protons.*

97.

Which statement correctly matches the valve with its function in the heart?

The aortic valve allows oxygenated blood to flow from the left ventricle to the rest of the body.

The mitral valve opens to allow blood flow from the right ventricle into the pulmonary system.

The pulmonic valve allows deoxygenated blood flow from the right atria to the right ventricle.

The tricuspid valve allows oxygenated blood to flow from the left atria to the left ventricle.

***Explanation:***

*The aortic valve allows oxygenated blood flow from the left ventricle to the rest of the body. The mitral valve allows oxygenated blood flow from the left atria to the left ventricle. The pulmonic valve opens to allow blood flow from the right ventricle to the pulmonary system. The tricuspid valve allows deoxygenated blood flow from the right atria to the right ventricle.*

98.

The precision of a number of data points refers to:

How accurate the data is

How many errors the data contains

How close the data points are to the mean of the data

How close the actual data is to the predicted result

***Explanation:***

*The closer the data points are to each other, the more precise the data. This does not mean the data is accurate, but that the results are very reproducible.*

99.

Which force motivates filtration in the kidneys?

Osmosis

Smooth muscle contraction

Peristalsis

**Blood pressure**

***Explanation:***

*The force of blood pressure motivates filtration in the kidneys. Filtration is the process through which the kidneys remove waste products from the body. All of the water in the blood passes through the kidneys every 45 minutes. Waste products are diverted into ducts and excreted from the body, while the healthy components of the water in blood are reabsorbed into the bloodstream. Peristalsis is the set of involuntary muscle movements that move food through the digestive system.*

100.

In mammals, blood pH must be kept fairly constant (very close to 7.4) in order for these animals to survive. Which two organs play the MOST IMPORTANT role in regulating blood pH in mammals?

**Kidneys and lungs**

Heart and lungs

Kidneys and liver

Liver and lungs

**Explanation:**

*Blood pH in mammals is chiefly regulated by the kidneys and lungs. The lungs remove nearly all of the CO<sub>2</sub> from the blood, preventing acidosis. Bicarbonate is adjusted by the kidneys to prevent acidosis and alkalosis. Therefore, the correct answer is A.*

101.

Which of the following best describes the primary function of carbohydrates?

Provide energy

Aid in metabolism

Muscle tissue function

Prevents cell damage

**Explanation:**

*Carbohydrates are the primary source of energy for the body. Proteins and lipids also provide energy, but are not as readily digestible to use actively. The Dietary Guidelines for Americans recommends 45-65% of food intake consist of carbohydrates. Vitamins and minerals aid in metabolism and allow for cellular repair. Fats and proteins are available for energy if the body needs them, but the primary function of fats is to support cell growth and regulation of bodily*

*functions, while the primary function of proteins is to help repair and build muscle tissue and to regulate chemical balances in the body.*

102.

In humans, more than one gene contributes to the trait of hair color. This is an example of

Pleiotropy

**Polygenic inheritance**

Codominance

Linkage

***Explanation:***

*When more than one gene contributes to a trait, inheritance of that trait is said to be polygenic. This type of inheritance does not follow the rules of Mendelian genetics. Pleiotropy is the opposite, whereas one gene contributes to two or more unrelated traits. Codominance is a non-mendelian inheritance where both alleles are expressed in a heterozygote individual, rather than the dominant allele being expressed and the recessive being masked. Gene linkage occurs between two genes that are located near each other on a chromosome and are usually inherited together.*

103.

The scientific method is a series of steps to accomplish which of the following?

**Solve a problem**

Gather information

Ask a scientific question

Formulate a hypothesis

***Explanation:***

*The scientific method is a series of steps to solve a problem. Gathering information, asking scientific questions, and formulating hypotheses are all parts of the scientific method.*

104.

Which statement accurately describes an electrolysis reaction?

A reaction that changes the charge of the atoms

**A reaction that uses electricity to drive it**

A reaction that creates electricity as a by-product

A reaction that lowers the pH of the substances

***Explanation:***

*An electrolysis reaction is a chemical reaction that uses electricity to drive it. Electrolysis reactions take place in an electrolytic cell where one substance will be oxidized and another will be reduced using electrical energy from a battery or other source.*

105.

Which of the following describes enlargement of an organ or tissue?

Dystrophy

Atrophy

**Hypertrophy**

Eutrophy

***Explanation:***

*Hypertrophy is the enlargement of an organ or tissue. For example, benign prostatic hypertrophy (BPH) is the gradual enlargement of the prostate. It impinges on the bladder neck resulting in difficulty with voiding. It becomes more common as men age. Although it is a nuisance, it does not usually cause serious problems.*

106.

How does water affect the temperature of a living thing?

Water increases temperature.

**Water keeps temperature stable.**

Water decreases temperature.

Water does not affect temperature.

**Explanation:**

*Water stabilizes the temperature of living things. The ability of warm-blooded animals, including human beings, to maintain a constant internal temperature is known as homeostasis. Homeostasis depends on the presence of water in the body. Water tends to minimize changes in temperature because it takes a while to heat up or cool down. When the human body gets warm, the blood vessels dilate and blood moves away from the torso and toward the extremities. When the body gets cold, blood concentrates in the torso. This is the reason why hands and feet tend to get especially cold in cold weather.*

107.

**A neuron consists of three main parts. These are:**

Effector, cell body, axon

**Dendrites, axon, cell body**

Dendrites, axon, receptor

Synapse, axon, cell body

**Explanation:**

*The cell body, containing the nucleus, is the control center of the cell and the site of its metabolic activity. Dendrites, which extend from this cell body, receive signals from other cells in the form of neurotransmitters. This triggers an electrical impulse, which travels down the axon to the next cell on the route of the signal. At the end of the axon, neurotransmitters are again released, cross the synapse, and act upon the following cell.*

108.

Elements on the periodic table are arranged into groups and periods and ordered according to all of the following EXCEPT:

Atomic number

**Refractive index**

Reactivity

Number of protons

***Explanation:***

*The refractive index is an optical property which is not related to the organization of the periodic table. Elements on the periodic table are arranged into periods, or rows, according to atomic number, which is the number of protons in the nucleus. The periodic table illustrates the recurrence of properties. Each column, or group, contains elements that share similar properties, such as reactivity.*

109.

Which is true of the process of digestion:

**Digestion of starch begins in the mouth.**

Amylase is produced by the stomach to help break down food in the upper intestine.

The di- and tri-saccharides, which are produced in early digestion, are absorbed through the intestinal wall.

Proteases are responsible for breaking down starches.

**Explanation:**

*The digestion of starch begins with its exposure to the enzyme amylase, which is present in the saliva. Amylase attacks the glycosidic bonds in starch, cleaving them to release sugars. This is the reason why some starchy foods may taste sweet if they are chewed extensively. Another form of amylase is produced by the pancreas, and continues the digestion of starches in the upper intestine. The di- and tri-saccharides, which are the initial products of this digestion, are eventually converted to glucose, a monosaccharide that is easily absorbed through the intestinal wall. Proteases are the enzymes responsible for breaking down proteins into amino acids.*

110.

What is the term for the process by which unspecialized cells transform into more specialized cells?

Differentiation

Evolution

Mitosis

Synthesis

**Explanation:**

*The process by which a less specialized cell develops into a more specialized form is known as cellular differentiation. This process is vital to the growth and development of humans and other complex multicellular organisms. A human embryo starts as a single undifferentiated cell. It then divides and differentiates into the roughly two hundred different kinds of cells in the adult human body.*

111.

Which of the following is NOT true concerning forming and testing hypotheses?

A controlled experiment should have only one independent variable.

A controlled experiment may have several constants.

A good hypothesis should take all of the available background material on the topic into consideration.

**A good hypothesis will not be disproved by testing.**

***Explanation:***

*A good hypothesis must be testable. This means it may be proved or disproved by testing using a controlled experiment. A controlled experiment may have several constants but only one independent variable.*

112.

During the process of oogenesis, primary oocytes produce:

Sperm

**Eggs**

Oogonia

Stem cells

**Explanation:**

*Oogenesis is the process that gives rise to the ovum, or egg, in mammals. The oocyte is the immature egg cell in the ovary. In humans, one oocyte matures during each menstrual cycle. It develops first into an intermediate form called the ootid, and eventually into an ovum. The prefix oo- is derived from Greek, and means "egg."*

113.

The density of a material refers to:

Mass per volume

Mass per mole

Molecular weight per volume

Moles per volume

**Explanation:**

*Density is mass per volume, typically expressed in units such as  $\frac{\text{g}}{\text{cm}^3}$ , or  $\frac{\text{kg}}{\text{m}^3}$ .*

114.

A young woman fell and suffered a scaphoid fracture. Which of the following areas is the scaphoid located?

Wrist

Shoulder

Spine

Face

**Explanation:**

*The scaphoid bone is one of eight carpal bones that make up the wrist along with the radius and the ulna. The scaphoid bone is located at the base of the thumb. It is the most frequently injured bone in the wrist. The other carpal bones are trapezoid, trapezium, capitate, hamate, pisiform, triquetrum, and lunate.*

115.

How are lipids different from other organic molecules?

They are indivisible.

**They are not water soluble.**

They contain zinc.

They form long proteins.

**Explanation:**

*Unlike other organic molecules, lipids are not water soluble. Lipids are typically composed of carbon and hydrogen. Three common types of lipids are fats, waxes, and oils. Indeed, lipids usually feel oily when you touch them. Some examples of fats are lard, corn oil, and butter. Some examples of waxes are beeswax and carnauba wax. Some examples of steroids are cholesterol and ergosterol. Amino acids can form long chains of proteins.*

116.

During which part of the menstrual cycle is a woman MOST likely to become pregnant?

During menstruation

**At ovulation**

Halfway between the end of menstruation and the onset of ovulation

14 days after the start of menstruation

**Explanation:**

*A woman is most likely to become pregnant around the time of ovulation, the part of the menstrual cycle in which a mature ovum, or egg, is released into the oviduct. This typically occurs 14 days after the start of menstruation, but varies from woman to woman and therefore is not always the most likely time for a woman to become pregnant. Because the menstrual cycle can vary in length, however, the rhythm method, or timing intercourse to avoid ovulation, is not a reliable method of avoiding pregnancy.*

117.

Proteins are made up of which of the following repeating subunits?

Sugars

Triglycerides

**Amino acids**

Nucleic acids

***Explanation:***

*Proteins are large polypeptides, comprised of many amino acids linked together by an amide bond. DNA and RNA are made up of nucleic acids. Carbohydrates are long chains of sugars. Triglycerides are fats and are composed of a glycerol molecule and three fatty acids.*

118.

The breakdown of a disaccharide releases energy which is stored as ATP. This is an example of a(n)

Combination reaction

Replacement reaction

Endothermic reaction

**Exothermic reaction**

***Explanation:***

*An exothermic reaction releases energy, whereas an endothermic reaction requires energy. The breakdown of a chemical compound is an example of a decomposition reaction ( ). A combination reaction ( ) is the reverse of a decomposition reaction, and a replacement (displacement) reaction is one where compound breaks apart and*

forms a new compound plus a free reactant ( ).

or

119.

Which hormone is NOT secreted by a gland in the brain?

Human chorionic gonadotropin (HCG)

Gonadotropin releasing hormone (GnRH)

Luteinizing hormone (LH)

Follicle stimulating hormone (FSH)

**Explanation:**

*HCG is secreted by the trophoblast, part of the early embryo, following implantation in the uterus. GnRH (gonadotropin-releasing hormone) is secreted by the hypothalamus, while LH (luteinizing hormone) and FSH (follicle-stimulating hormone) are secreted by the pituitary gland. GnRH stimulates the production of LH and FSH. LH stimulates ovulation and the production of estrogen and progesterone by the ovary in females, and testosterone production in males. FSH stimulates maturation of the ovarian follicle and estrogen production in females and sperm production in males.*

120.

What steps should precede drawing a conclusion about a hypothesis?

Testing, observing, and recording data

Communicating the hypothesis to others

Comparing data with data of other groups

Writing the results so they can be replicated

***Explanation:***

*Before drawing a conclusion about a hypothesis, one should test it, observe it, and record data about the test results. In the discussion of many scientific papers, scientists will compare and contrast their data to the findings of other groups. The methods of an experiment should be written so an experiment can be replicated.*

121.

In snapdragons, the red ( ) allele is incompletely dominant to the white ( ) allele. If you saw a pink snapdragon, you would know

Its phenotypes for both parents

Its genotypes for both parents

Its genotype for one parent

**Its genotype**

***Explanation:***

You would know the snapdragon has an \_\_\_\_\_ genotype, but you would not know whether its parents had an \_\_\_\_\_ genotype or a combination of \_\_\_\_\_ and \_\_\_\_\_ or \_\_\_\_\_ and \_\_\_\_\_.

122.

A normal human sperm must contain:

An X chromosome

A Y chromosome

23 chromosomes

Both an X and Y chromosome

**Explanation:**

*A normal sperm must contain one of each of the human chromosome pairs. There are 23 chromosome pairs in all. Twenty-two of these are autosomal chromosomes, which do not play a role in determining gender. The remaining pair consists of either two X chromosomes in the case of a female, or of an X and a Y chromosome in the case of a male. Therefore, a normal sperm cell will contain 22 autosomal chromosomes and either an X or a Y chromosome, but not both.*

123.

Red-green color blindness is an X-linked recessive trait. What is the probability that a mother that is heterozygous for this trait and a father with this trait will have affected children?

0

1/4

1/2

3/4

**Explanation:**

*The mom will have a genotype of  $X^{c}X$ , while the father will have the genotype ( $XY$ ), Based on the Punnett square, half of the girls and half of the boys will receive the red-green color blindness trait. Therefore 1/2 of their children will receive the X-linked trait.*

124.

**The triceps reflex:**

**Forces contraction of the triceps and extension of the arm**

Forces contraction of the biceps, relaxation of the biceps, and arm extension

Causes the triceps to contract, causing the forearm to supinate and flex

Causes the triceps to relax and the upper arm to pronate and extend

**Explanation:**

*The triceps reflex forces the triceps to contract, which in turn extends the arm. Eliciting the deep tendon reflexes is an important indication of neural functioning. Without them, it can be a clue to serious spinal cord or other neurological injury. The physician should be notified immediately if a patient loses deep tendon reflexes.*

125.

**What is the name for a joint that can only move in two directions?**

Hinge

Insertion

Ball and socket

Flange

**Explanation:**

*A hinge joint can only move in two directions. The elbow is a hinge joint. It can only bring the lower arm closer to the upper arm or move it away from the upper arm. In a ball-and-socket joint, the rounded top of one bone fits into a concave part of another bone, enabling the first bone to rotate around in this socket. This connection is slightly less stable than other types of joints in the human body and is therefore supported by a denser network of ligaments. The shoulder and hip are both examples of ball-and-socket joints.*

126.

**What type of compound is formed by the combination of two or more non-metallic elements with one another?**

Organic

Ionic

**Covalent**

Chemical

***Explanation:***

*Covalent compounds are usually formed by the combination of two or more non-metallic elements with one another. In these compounds atoms share electrons. Ionic compounds are most often formed between a metal and a non-metal. Organic compounds are covalent compounds which contain carbon and hydrogen atoms. "Chemical compounds" is a general term that can mean any type of compound, either ionic or covalent.*

127.

Which of the following is an example of a descriptive study?

**Correlational studies of populations**

Identifying a control

Statistical data analysis

Identifying dependent and independent variables

***Explanation:***

*A correlational study of a population is an example of a descriptive study. Identifying a control and statistical data analysis are examples of the controlled experimentation type of scientific investigation. Identifying dependent and independent variables is an example of the comparative data analysis type of scientific investigation.*

128.

**What is correct about the hormones that stimulate male and female organs to produce male and female sex hormones?**

Female organs are stimulated by female hormones and male organs by male hormones.

The same hormones that produce male or female sex characteristics stimulate the organs.

**The same hormones stimulate both male and female organs to produce sex hormones.**

The hypothalamus stimulates the pituitary gland's secretion of male and female hormones.

***Explanation:***

*In both females and males, the brain's hypothalamus stimulates the pituitary gland to secrete luteinizing hormone (LH) and follicle-stimulating hormone (FSH). In females, these two hormones stimulate the ovaries to produce estrogen; in males, they stimulate the testes to produce testosterone. Hence, both female and male organs are stimulated by the same hormones, not each by female or male hormones (A). LH and FSH, the hormones that stimulate the male and female sexual organs, are not the same as estrogen and testosterone, which respectively stimulate the male and female organs to produce these sex hormones (B). The pituitary gland does not secrete these (D); it secretes LH and FSH.*

129.

**A group of students are playing basketball. During the game, Sally always hits the top of the backboard in roughly the same spot, but the ball never makes it into the basket. What could be said about Sally's shots?**

**She was precise but not accurate.**

She was not accurate or precise.

She was both accurate and precise.

She was accurate but not precise.

***Explanation:***

*Sally's shots never made it into the basket, so she was not accurate. However, she was precise because her shots roughly landed in the same spot.*

130.

**Which of the following is never true of a chemical reaction?**

Matter is neither gained nor lost.

Heat is absorbed or released.

The rate of the reaction increases with temperature.

**There are a different number of atoms for the products and the reactants.**

***Explanation:***

*There are a different number of atoms for the products and the reactants. This is not true of a chemical reaction. Chemical equations must be balanced on each side of the reaction.*

*Balancing means the total number of atoms stays the same, but their arrangement within specific reactants and products can change. The law of conservation of matter states that matter can never be created or destroyed. Heat may be absorbed or released in a reaction; these are classified as endothermic and exothermic reactions, respectively. The rate of the reaction increases with temperature for most reactions.*

131.

Which of the following words does not function as an adjective in the sentence below?

A quick review of all available housing options indicated that Casper had little choice but to rent for now and wait for a better time to buy.

quick

available

little

rent

**Explanation:**

*The words quick, available, and little are all adjectives in the sentence. Quick modifies review, available modifies housing options, and little modifies choice. The word rent is part of the infinitive (i.e. verbal) phrase to rent, so it functions as a verb in this sentence and describes what Casper will have to do.*

132.

Based on the sentence, which of the following forms of the word *ether* best fits in the blank?

By removing the water from alcohol, the chemist was able to complete his process of \_\_\_\_\_.

ethering

**etherification**

ethersize

etherate

***Explanation:***

*The term etherification uses the most appropriate suffix combination of -ify, which means to cause something to be in a certain state and -tion, which denotes that the word is a process. The suffix -ing is used to make a verb into a present progressive tense or to make a verb function as a noun, called a gerund. In this sentence, ether is a noun that needs to act as a verb, so adding -ing does not construct a real word. In choice C, the suffix used is -ize, which correctly describes the process of causing something to become something else. In this case, it would correctly describe the process of causing something to become an ether, but this grammatical form does not fit the context. Likewise, etherate does not fit the context well, but it does use an appropriate suffix that means to cause to become.*

133.

**What is the grammatical error in the sentence?**

**Aware that his decision would affect the rest of his life, the college Ben chose was Harvard.**

The subject and the verb do not agree.

The sentence ends with a preposition.

**There is a dangling modifier.**

There is no error.

**Explanation:**

*Dangling and misplaced modifiers are common types of errors that occur in sentences with introductory phrases. In both dangling and misplaced modifiers, the introductory phrase is located before a word or phrase that isn't the correct subject, so the meaning of the sentence is changed. Misplaced modifiers are attached to the wrong word, whereas the intended subjects of dangling modifiers are not included in the sentence at all. The subject of this sentence should be Ben, but the noun that follows the comma at the end of the opening phrase names the subject as the college Ben chose. This does not match the introductory phrase and is an example of a dangling modifier. The subject, the college Ben chose, agrees with the verb was, which rules out choice A. Harvard is a noun, not a preposition, which rules out choice B.*

134.

Which of the following revisions would most improve the word choice in this sentence?

This week has been a challenge for everyone, but I am certain we are all pretty proud of what we have accomplished.

Change *challenge* to *obstacle*

Change *certain* to *sure*

Change *pretty* to *incredibly*

Change *accomplished* to *achieved*

**Explanation:**

*Choice C is correct. Although pretty accurately suggests a small but noticeable amount of pride, it is generally considered a casual word when used as an intensifier. It can also be vague. In choice C, this problem is solved by changing pretty to incredibly, which is both more specific and better matches the idea and emotion of being proud of one's accomplishments. Very would*

also be acceptable. *Obstacle*, choice A, has a slightly different meaning from *challenge*, and it does not fit well here. Sure, choice B, would likely be acceptable, but it is less formal than *certain*, so it would not match the tone very well. *Achieved*, choice D, would not make much difference. And none of the choices except choice C would address the problem with *pretty*.

135.

If the following sentences were all included in the same paragraph, which sentence is likely to be the topic sentence of a paragraph?

Choosing an office chair that supports your posture is also important.

Put these tips to use now and start practicing good posture today.

**Some essential changes can help you improve your posture right away.**

It can be difficult to sit up straight with the wrong chair.

***Explanation:***

*Choice C is correct because this sentence tells the reader that some information, some essential changes, is about to follow, and it alerts the reader to how this information relates to them (can help you ... right away). Choice A is likely to be a supporting detail because of the word also, which indicates that choosing an office chair is just one important point among others. Choice B is likely to be a concluding sentence because it refers back to information already given (these tips) and extends the information to the reader's real life (start ... today). Choice D, like choice A, seems likely to be a supporting detail, as it is self-contained—not referring to any information that has been or is about to be given.*

136.

Which of the following sentences demonstrates correct pronoun usage?

**This mystery concerns my friend Watson and me.**

This mystery concerns me and my friend Watson.

This mystery concerns my friend Watson and I.

This mystery concerns I and my friend Watson.

***Explanation:***

*Two issues have to be decided in this question. First, should the pronoun used here be I or me? Second, should it come before or after my friend Watson? To settle the first issue, the phrase under consideration is the compound direct object of the sentence. Thus, the pronoun should be the objective case me. The second issue is a matter of convention. In a compound part such as this, the first-person pronoun always comes last. The correct usage, therefore, is my friend Watson and me.*

137.

Using your knowledge of word parts, which of the following is the best definition of *anticoagulant*?

The process of coagulation in wound healing

**A substance that slows or prohibits the clotting of blood**

A drug that increases blood flow

A condition where blood doesn't coagulate

**Explanation:**

The correct answer is choice B. An anticoagulant is a substance that inhibits the coagulation of blood. You can guess this by looking at the three parts of the word. Anti- is a prefix meaning not or against, so a word with this prefix will mean the opposite of its root word. The root word is coagulate, which means to change to a semisolid or solid state, particularly in regard to blood. The suffix -ant on a noun can mean a substance or physical agent, like in deodorant or disinfectant. Given the meanings of these three parts, you can reasonably guess that an anticoagulant is a substance that doesn't coagulate or that prohibits coagulation.

138.

Which of the following statements includes informal language?

The board has determined that this is an acceptable compromise.

It's okay to feel out of place sometimes, especially at this age.

Evidence of divergent thinking is a strong determiner for future success.

Organizations can be guilty of assuming that policies are inclusive when they are not.

**Explanation:**

Each sentence shows qualities of formal language (lack of second-person pronouns, no contractions, elevated vocabulary) except choice B. This sentence has a more personal tone, uses simpler words like okay, and contains idiomatic language such as feel out of place, all of which indicate that it is written in an informal style.

139.

Which of the following shows where a comma should be added to the sentence?

We traveled to a beautiful quaint village.

We traveled, to a beautiful quaint village.

We traveled to a beautiful, quaint, village.

We, traveled to a, beautiful quaint village.

**We traveled to a beautiful, quaint village.**

***Explanation:***

*In this sentence, a comma should be used to separate the two adjectives beautiful and quaint. Commas are used to separate adjectives that can be reordered without affecting the clarity of the sentence.*

140.

Which of the following edits would clarify the meaning of the sentence?

After setting up his new printer, Greg could see that it wasn't functional, so he decided to ask them for a refund.

Change *it* to *the device*

Change *could see* to *discovered*

**Change *them* to *the company he bought it from***

Change *ask* to *implore*

**Explanation:**

Choice C is correct. In this sentence, *them* is unclear. The reader does not know who Greg is going to ask for a refund. There is no previous noun in the sentence that this pronoun could be referring to. Changing this word from *them* to the company he bought it from will provide clarity and specificity. The words in choices A, B, and D do not carry ambiguity that seriously undermines the meaning of the sentence.

141.

Which of the words below uses the following spelling rule correctly?

When adding a suffix to a word that ends in a consonant, double the final constant.

*Happen* becomes *happenning*

***Embed* becomes *embedded***

*Visit* becomes *visitting*

*Form* becomes *formmed*

**Explanation:**

Choice B, *embedded*, is the only option that correctly follows the “double the consonant” spelling rule. Many words that end in a consonant must have that last consonant doubled before a suffix beginning with a vowel, like *-ing*, *-ed*, and *-est* can be added. Not all words ending in consonants must follow this rule. For words with more than one syllable, only double the last consonant if the stress (the emphasis) falls on the last syllable. In the words *happen* and *visit* the stress falls on the first syllable, so the final consonant does not need to be doubled in either of these words. *Form* ends in the consonant blend *rm*, so its final consonant does not need to be doubled.

142.

Which of the following correctly completes the sentence below?

It wasn't until Grant was at the checkout that he \_\_\_\_\_ his wallet was missing.

will realize

realizes

**realized**

has realized

***Explanation:***

*Choice C is correct. Though the grammar of the sentence is complex, we can see that the sentence describes a past event because of wasn't and two uses of was. Choice C alone contains a simple past verb. Choice A uses will, which refers to future events. Choice B is present, and choice D is present perfect (which is used for past events, but only to relate them to the present). Neither of these verbs would match the past tense of the sentence.*

143.

Of the following writing tasks, which would most likely be completed last?

Searching for credible and relevant sources in an online database

Replacing a paragraph that centers around a weak main point

Using an outline to compose the first draft of an essay

## Reviewing a final draft for opportunities to improve word choice

### **Explanation:**

*While the recursive writing process allows for some steps to be done in any order or be repeated, a writer must still complete editing, revision, and proofreading last. Choices A and C are steps that must occur before the final improvements to a composition are made. While choice B could be completed last, it is likely that a writer would review their final draft again after the addition of any new paragraphs.*

144.

How many of each type of clause are included in the following sentence?

Although Ted had an impressive education, he had little experience working with individuals, which made him less effective at relating to them.

One independent clause and two dependent clauses

Two independent clauses and one dependent clause

Two independent clauses and no dependent clauses

One independent clause and one dependent clause

### **Explanation:**

*The sentence begins with a dependent clause: "Although Ted had an impressive education." Next comes the independent clause, "he had little experience working with individuals." Finally, there is a second dependent clause: "which made him less effective at relating to them." This makes the correct answer one independent clause and two dependent clauses.*

145.

In this sentence, which part is NOT a prepositional phrase?

We will depart as a class, but when we arrive, we will split up into small groups before embarking on our adventure.

As a class

**When we arrive**

Into small groups

On our adventure

***Explanation:***

*Prepositional phrases are groups of words that modify a verb or a noun and which must contain a preposition and its object, a noun or pronoun. In choice A, as a class modifies the verb depart, with as meaning in the role of (a class). In choice C, the prepositional phrase into small groups modifies the verb split, with into, meaning becoming or producing (small groups). In choice D, the phrase on our adventure modifies the verb embarking. The phrase when we arrive in choice B is not a prepositional phrase but is an adverbial dependent clause, modifying the predicate we will split by specifying when in the independent clause we will split up into small groups.*

146.

Which of the following words includes a suffix that makes the word have a different meaning than its root word?

Collegiate

**Improvise**