# ATI TEAS Practice Test

## Reading, Math, Science, English

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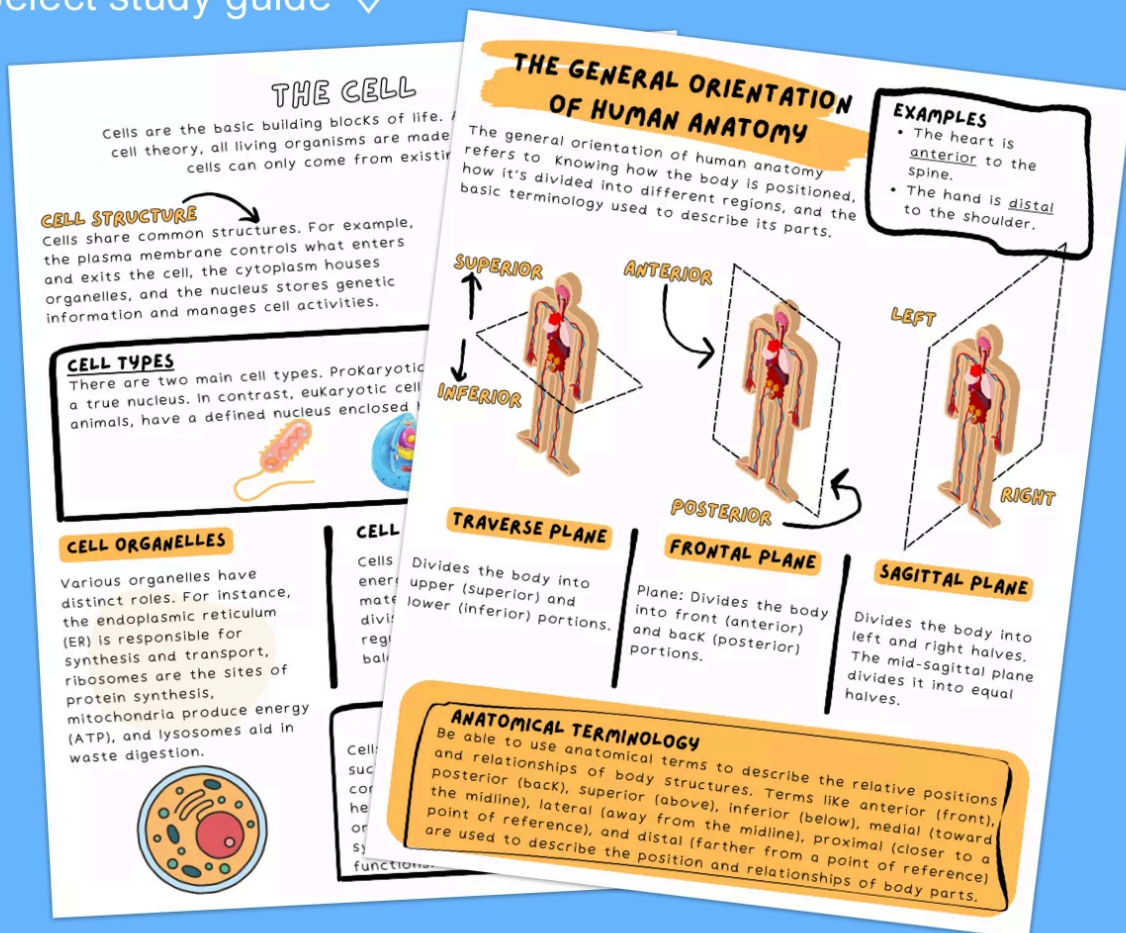TestBeach

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# Reading Module

20 questions

## 1. What is the theme of the passage?

The Roman Republic, which lasted from 509 BCE to 27 BCE, was marked by a complex system of government and a deep sense of civic duty. At the heart of the Republic was the Senate, a council of around 300 patricians who advised the magistrates and made important decisions on behalf of the state. The magistrates themselves were elected officials who served for one year terms and were responsible for various aspects of governance, from maintaining public order to overseeing the distribution of grain. The most powerful magistrates were the consuls, who acted as military commanders and presided over the Senate.

The Republic was also characterized by a deep sense of civic duty and patriotism, as Romans were expected to put the needs of the state above their own interests. This ethos was reflected in the Roman military, which was made up of citizen-soldiers who were expected to fight for their country when called upon. The Roman army was highly disciplined and organized, with soldiers trained in a variety of techniques and tactics. Military service was seen as a mark of honor and a way to earn social and political status.

A. The rise and fall of the Roman Republic
B. The importance of civic duty and patriotism in the Roman Republic
C. The military tactics and organization of the Roman army
D. The complexity of the Roman government system

## 2. Which of the following statements describes the author's primary claim in this passage?

The construction industry has been facing a productivity crisis for decades. Despite advances in technology and construction methods, productivity has remained stagnant or even decreased in recent years. One reason for this lack of productivity is the industry's reliance on outdated practices and resistance to change. In addition, a shortage of skilled labor and lack of investment in workforce development have further compounded the problem. The construction industry must embrace innovation and invest in the workforce to improve productivity and meet the growing demand for infrastructure.

A. The construction industry has always been unproductive.
B. The shortage of skilled labor is the only factor contributing to the lack of productivity in the construction industry.
C. The construction industry does not need to change its outdated practices to improve productivity.
D. Innovation and investment in the workforce are necessary to improve productivity in the construction industry.

**3. Which of the following is a primary source of information about the life of Albert Einstein?**

A. A biography of Albert Einstein by a famous scholar
B. A quote from Albert Einstein of the speed of light
C. An interview of Albert Einstein about his move to America from Europe
D. A website that lists Albert Einstein's accomplishments

**4. Which of the following statements best reflects the author's perspective on the current status of the construction industry in the passage?**

The construction industry has been facing a productivity crisis for decades. Despite advances in technology and construction methods, productivity has remained stagnant or even decreased in recent years. One reason for this lack of productivity is the industry's reliance on outdated practices and resistance to change. In addition, a shortage of skilled labor and lack of investment in workforce development have further compounded the problem. The construction industry must embrace innovation and invest in the workforce to improve productivity and meet the growing demand for infrastructure.

A. The lack of productivity in the construction industry is a cause for concern and requires attention and improvement
B. The construction industry has seen a steady increase in productivity over the years

C. The construction industry is highly productive and efficient
D. The construction industry faces a labor shortage and embracing technology can aid in filling missing positions

**5. Which of the following statements best reflects the author's perspective on the current status of the construction industry in the passage?**

The construction industry has been facing a productivity crisis for decades. Despite advances in technology and construction methods, productivity has remained stagnant or even decreased in recent years. One reason for this lack of productivity is the industry's reliance on outdated practices and resistance to change. In addition, a shortage of skilled labor and lack of investment in workforce development have further compounded the problem. The construction industry must embrace innovation and invest in the workforce to improve productivity and meet the growing demand for infrastructure.

A. The construction industry is highly productive and efficient
B. The construction industry has seen a steady increase in productivity over the years
C. The lack of productivity in the construction industry is a cause for concern and requires attention and improvement
D. The construction industry faces a labor shortage and embracing technology can aid in filling missing positions

**6. Which of the following information from the passage best supports the author's claim that people shouldn't eat tilapia?**

Tilapia is a popular fish species that is consumed worldwide. However, there are a number of reasons why people should avoid eating it. First and foremost, tilapia is often raised in crowded, unsanitary conditions, which can lead to disease and infection. Additionally, many tilapia farms use large amounts of antibiotics and other chemicals to keep the fish healthy, which can have negative effects on human health.
Furthermore, tilapia has been found to have higher levels of inflammatory omega-6 fatty acids than omega-3 fatty acids, which can lead to chronic inflammation and other health problems. Given these factors, it is best to avoid consuming tilapia and opt for healthier fish options instead.

A. Tilapia is a popular fish species that is consumed worldwide.
B. Tilapia is often raised in crowded, unsanitary conditions, which can lead to disease and infection.
C. Many tilapia farms use large amounts of antibiotics and other chemicals to keep the fish healthy.
D. Tilapia has higher levels of inflammatory omega-6 fatty acids than omega-3 fatty acids.

**7. Which of the following pieces of information from the passage does not contribute to making a good argument about why a flat tax is not more fair than a progressive tax?**

A flat tax, while seemingly straightforward and equitable on the surface, is not inherently more fair than a progressive tax system. Millionaires and billionaires live eccentric lives, often from inheritances and not from their own work, meanwhile the lower income class struggle to put food on the table. The primary argument against a flat tax is its regressive nature, which means it disproportionately affects lower-income individuals. In a flat tax system, everyone pays the same percentage of their income, regardless of how much they earn. This means that a person earning 2,000,000 a year would both pay, for example, 10% of their income in taxes. While 10% might be a minor inconvenience for the millionaire, for the individual earning $20,000, that same percentage could mean the difference between affording basic necessities or going without. A progressive tax, on the other hand, is designed to tax higher incomes at higher rates, ensuring that those with greater financial means contribute a larger share, which is seen by many as a more equitable approach. This system acknowledges the diminishing marginal utility of money: the idea that an additional dollar means less to someone who already has millions compared to someone living paycheck to paycheck.

A. Flat tax is naturally regressive by disproportionately affecting lower-income individuals
B. Emotional statements
C. Millionaires and billionaires live eccentric lives, often from inheritances and not from their own work
D. This system acknowledges the diminishing marginal utility of money: the

idea that an additional dollar means less to someone who already has millions compared to someone living paycheck to paycheck

**8. Which of the following statements accurately describes one of the recent developments in artificial intelligence mentioned in the passage?**
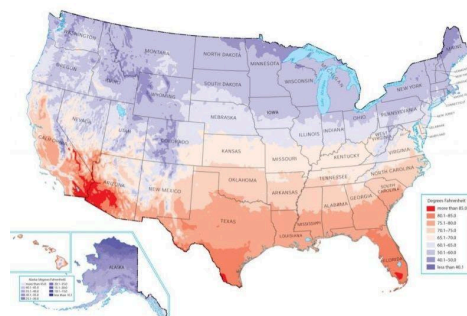
Artificial intelligence has made significant strides in recent years, with many experts predicting that AI will play an increasingly important role in shaping our world. One of the most exciting developments in AI is the emergence of deep learning algorithms, which allow machines to learn and improve on their own, without human intervention. Deep learning has led to major breakthroughs in fields such as image and speech recognition, natural language processing, and even medical diagnosis. Another important area of AI development is reinforcement learning, which involves teaching machines to make decisions based on feedback from their environment. This approach has led to significant progress in areas such as robotics and autonomous vehicles, as well as game-playing AI systems.

A. Artificial intelligence has not made any significant advancements in recent years.
B. Deep learning algorithms allow machines to learn and improve without any human involvement, which has led to significant breakthroughs in areas such as image and speech recognition.
C. Reinforcement learning is a type of AI that involves teaching machines to make

decisions based on random inputs, which has led to significant progress in the field of medicine.
D. Autonomous vehicles and game-playing AI systems have not seen any improvements due to advancements in artificial intelligence.

**9. The graphic below displays the maximum temperature, which is the average highest temperature recorded on a daily basis in the United States. Which US state can be considered the hottest state?**



Reference: https://gisgeography.com/us-temperature-map/

A. Hawaii
B. Florida
C. Texas
D. Arizona

**10. Which of the following statements accurately summarizes the main points of the passage above?**

During the reign of Emperor Nero in the first century CE, the Roman Empire experienced a period of great turmoil and upheaval. Nero was a controversial figure, known for his extravagance, cruelty, and erratic behavior. He was responsible for the deaths of many of his own family members, including his mother, and he was widely believed to have started the Great Fire of Rome in 64 CE in order to clear space for a grand new palace. The fire destroyed much of the city and left thousands homeless. Nero's rule ended in 68 CE, when he was given the death penalty following a revolt by the Roman Senate.

A. During the reign of Emperor Nero in the first century CE, the Roman Empire experienced a period of great turmoil and upheaval, marked by Nero's controversial behavior and his role in the Great Fire of Rome. Nero's rule ended in 68 CE after he was given the death penalty following a revolt by the Roman Senate.

B. During the reign of Emperor Nero in the first century CE, the Roman Empire experienced a period of great prosperity and cultural exchange. Nero was a popular figure known for his kindness and generosity. He oversaw the construction of many new buildings and public works projects, including the Colosseum.

C. During the reign of Emperor Nero in the first century CE, the Roman Empire was largely stable and peaceful. Nero was a controversial figure known for his extravagance and erratic behavior, but he was also a skilled military commander who led the Roman army to victory against several enemies.

D. During the reign of Emperor Nero in the first century CE, the Roman Empire experienced a period of great artistic and intellectual achievement. Nero was a patron of the arts and supported many famous writers, poets, and philosophers. He oversaw the construction of many new public buildings, including libraries and theaters.

**11. What motivated Theo to explore the woods behind his house?**

The year was 2018. Theo had always been an adventurous boy, but when he decided to explore the woods behind his house, he had no idea what he was in for. After wandering around for a few hours, Theo realized that he was lost. The dense forest looked the same in every direction and there was no sign of civilization. Panic set in as he realized that it was getting dark and he had no idea how to get back home. Just as he was about to give up hope, he heard a rustling in the bushes. A friendly-looking dog emerged, wagging its tail. Theo was relieved to have some company and he followed the dog as it led him through the woods. After a while, they stumbled upon a small cabin. The door was open and Theo could see a flickering light inside. Curiosity getting the better of him, he cautiously approached the cabin. In the cabin, Theo and the wandering dog encountered a very old lady named Susan. She tells them she hadn't seen anyone come by since her husband left for the war. With a face of curiosity, Theo asks which war as he hadn't heard of any wars. Susan replies, the revolutionary war.

A. His friends dared him to do it

B. He was looking for his lost dog

C. He was an adventurous boy

D. He was lost and trying to find his way back home

## 12. Which of the following sentences contains an opinion?

The appointment of US Supreme Court justices has long been a contentious issue in American politics. Critics argue that the current system, in which justices are nominated by the President and confirmed by the Senate, is undemocratic and lacks transparency. A better solution would be to elect Supreme Court justices through a public voting process. This would ensure that justices are directly accountable to the people they serve and would help to eliminate the influence of political elites in the appointment process. Furthermore, public elections would increase transparency and public trust in the judiciary, making the Supreme Court a more effective and respected institution.

A. The appointment of US Supreme Court justices has long been a contentious issue in American politics.

B. Critics argue that the current system, in which justices are nominated by the President and confirmed by the Senate, is undemocratic and lacks transparency.

C. A better solution would be to elect Supreme Court justices through a public voting process

D. Public elections would increase transparency and public trust in the judiciary, making the Supreme Court a more effective and respected institution.

## 13. What is the main idea of the passage?

The appointment of US Supreme Court justices has long been a contentious issue in American politics. Critics argue that the current system, in which justices are nominated by the President and confirmed by the Senate, is undemocratic and lacks transparency. A better solution would be to elect Supreme Court justices through a public voting process. This would ensure that justices are directly accountable to the people they serve and would help to eliminate the influence of political elites in the appointment process. Furthermore, public elections would increase transparency and public trust in the judiciary, making the Supreme Court a more effective and respected institution.

A. The appointment of US Supreme Court justices is a contentious issue in American politics.

B. Critics argue that the current system lacks transparency and is undemocratic.

C. Publicly electing Supreme Court justices would increase transparency and accountability.

D. The influence of political elites in the appointment process should be eliminated.

## 14. Which of the following statements best expresses the author's perspective on Thomas Edison?

Thomas Edison is often celebrated as one of America's greatest inventors, but a closer examination of his life reveals a different story. Edison was a ruthless businessman

who would stop at nothing to protect his interests, even if it meant stealing other people's ideas or exploiting his employees. His famous invention, the light bulb, was not entirely his own creation. In fact, he borrowed ideas and technology from other inventors and filed dubious patents, which led to multiple legal battles. Edison also had a reputation for being a poor employer, underpaying and overworking his staff. His treatment of the Serbian inventor Nikola Tesla, whom he reportedly cheated out of promised compensation, is a prime example of his ruthless nature. Despite his popular image as a hero of American innovation, Edison's inventions, while innovative, were often impractical and failed to live up to their hype. For instance, his phonograph, which he claimed could reproduce sound without any loss of quality, was too fragile and unreliable for commercial use. His motion picture camera was similarly flawed, and he lost a legal battle to a competitor over who had the rightful claim to the invention. In the end, Edison's legacy is not one of creativity and progress, but of greed and exploitation.

A. The author admires Edison's creativity and innovation, but acknowledges that he had flaws as a businessman.
B. The author believes that Edison was a poor inventor whose inventions were full of flaws.
C. The author portrays Edison as a ruthless and unethical businessman who exploited other people's ideas and inventions.
D. The author suggests that Edison was a misunderstood genius whose contributions to science and technology were undervalued in his time.

**15. Select all that apply. Which of the following details supports the main idea that people from the Roman Republic had a deep sense of patriotism?**

The Roman Republic, which lasted from 509 BCE to 27 BCE, was marked by a complex system of government and a deep sense of civic duty. At the heart of the Republic was the Senate, a council of around 300 patricians who advised the magistrates and made important decisions on behalf of the state. The magistrates themselves were elected officials who served for one year terms and were responsible for various aspects of governance, from maintaining public order to overseeing the distribution of grain. The most powerful magistrates were the consuls, who acted as military commanders and presided over the Senate. The Republic was also characterized by a deep sense of civic duty and patriotism, as Romans were expected to put the needs of the state above their own interests. This ethos was reflected in the Roman military, which was made up of citizen-soldiers who were expected to fight for their country when called upon. The Roman army was highly disciplined and organized, with soldiers trained in a variety of techniques and tactics. Military service was seen as a mark of honor and a way to earn social and political status.

A. "At the heart of the Republic was the Senate, a council of around 300 patricians who advised the magistrates and made important decisions on behalf of the state"

B. "ethos was reflected in the Roman military, which was made up of citizen-soldiers who were expected to fight for their country when called upon"
C. "Military service was seen as a mark of honor and a way to earn social and political status."
D. "The most powerful magistrates were the consuls, who acted as military commanders and presided over the Senate."

## 16. The instructions on how to cook the cake part of a tres leches dessert are below. According to the instructions, what is the second step with flour?

Cake Mix flour and baking powder.
Set aside. Beat egg yolks with 3/4 cup sugar.
Add milk and vanilla. Add flour mix to egg yolk mix.
Beat egg whites, add 1/4 cup sugar until stiff.
Fold egg whites into batter. Pour into dish.
Bake for 25-30 minutes.
Cool and poke holes.

A. Beat egg yolks with 3/4 cup sugar. Add milk and vanilla.
B. Mix flour and baking powder. Set aside.
C. Add flour mix to egg yolk mix.
D. Bake 25-30 minutes. Cool and poke holes.

## 17. Which of the following best captures the meaning of "when pigs fly" as used in the sentence?

I'll believe that my team has a chance of winning the championship when pigs fly, because they've been at the bottom of the league for so long that it seems impossible for them to turn things around.

A. Never
B. Possibly
C. Definitely
D. Fast

## 18. What inferences can you logically make about Theo after reading the passage?

The year was 2018. Theo had always been an adventurous boy, but when he decided to explore the woods behind his house, he had no idea what he was in for. After wandering around for a few hours, Theo realized that he was lost. The dense forest looked the same in every direction and there was no sign of civilization. Panic set in as he realized that it was getting dark and he had no idea how to get back home. Just as he was about to give up hope, he heard a rustling in the bushes. A friendly-looking dog emerged, wagging its tail. Theo was relieved to have some company and he followed the dog as it led him through the woods. After a while, they stumbled upon a small cabin. The door was open and Theo could see a flickering light inside. Curiosity getting the better of him, he cautiously approached the cabin. In the cabin, Theo and the wandering dog encountered a very old lady named Susan. She tells them she hadn't seen anyone come by since her husband left for the war. With a face of curiosity, Theo asks which war as he hadn't heard of any wars. Susan replies, the revolutionary war.

A. Theo is a curious and inquisitive person
B. Theo is good at following directions
C. Theo is easily frightened when lost
D. Theo is an experienced woodsman

## 19. What is the final shape of the paper?

Instructions: Fold the paper in half. Draw a circle in the top left corner of the paper. Write your name in the center of the circle. Underline your name twice. Draw a square in the bottom right corner of the paper. Shade in the square completely. Fold the paper in half again. Tear off the top right corner of the paper

A. A rectangle with a circle in the top left corner and a square in the bottom right corner.
B. A rectangle with a torn-off corner in the top right corner and a shaded square in the bottom right corner.
C. A square with a torn-off corner in the top right corner and a circle with an underlined name in the top left corner.
D. A square with a torn-off corner in the top right corner and a shaded square in the bottom right corner.

## 20. Select all that apply. What prediction(s) can the reader make about Theo after reading the passage?

The year was 2018. Theo had always been an adventurous boy, but when he decided to explore the woods behind his house, he had no idea what he was in for. After wandering around for a few hours, Theo realized that he was lost. The dense forest looked the same in every direction and there was no sign of civilization. Panic set in as he realized that it was getting dark and he had no idea how to get back home. Just as he was about to give up hope, he heard a rustling in the bushes. A friendly-looking dog emerged, wagging its tail. Theo was relieved to have some company and he followed the dog as it led him through the woods. After a while, they stumbled upon a small cabin. The door was open and Theo could see a flickering light inside. Curiosity getting the better of him, he cautiously approached the cabin. In the cabin, Theo and the wandering dog encountered a very old lady named Susan. She tells them she hadn't seen anyone come by since her husband left for the war. With a face of curiosity, Theo asks which war as he hadn't heard of any wars. Susan replies, the American Revolutionary War.

A. Theo will be more cautious when exploring the woods
B. There's something suspicious about the old lady in the woods
C. Theo will forget about his experience in the woods
D. Theo will become a hermit and live in the woods.

# Reading Module Answer Key

| QUESTION # | ANSWER(S) |
|---|---|
| 1. | B |
| 2. | D |
| 3. | C |
| 4. | A |
| 5. | C |
| 6. | D |
| 7. | A |
| 8. | B |
| 9. | D |
| 10. | A |
| 11. | C |
| 12. | C |
| 13. | C |
| 14. | C |
| 15. | B & C |
| 16. | C |
| 17. | D |
| 18. | A |
| 19. | B |
| 20. | A & B |

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## 1. What is the theme of the passage?

The passage discusses the Roman Republic and its government structure, but the overarching theme is the emphasis on civic duty and patriotism in Roman society.

The passage mentions how Romans were expected to put the needs of the state above their own interests, and how military service was seen as a way to earn honor and social status.

Option A, the rise and fall of the Roman Republic, is a possible topic but not the main theme of this particular passage. Option D, the complexity of the Roman government system, is a detail discussed in the passage but not the main theme. Option C, the military tactics and organization of the Roman army, is a specific aspect of the passage but not the main theme.

## 2. Which of the following statements describes the author's primary claim in this passage?

The other answer choices are not the PRIMARY claim of the passage.

## 3. Which of the following is a primary source of information about the life of Albert Einstein?

An interview of Albert Einstein about his move to America from Europe is considered a primary source of information because it is a firsthand account of Einstein's life by Einstein himself. The other answer choices are all secondary sources. They are told by other people about Einstein.A quote from Albert Einstein is also a primary source of information but a quote about the speed of light wouldn't tell us much about his life.

## 4. Which of the following statements best reflects the author's perspective on the current status of the construction industry in the passage?

The other answer choices are not points of view of the author on the construction industry.

## 5. Which of the following statements best reflects the author's perspective on the current status of the construction industry in the passage?

The other answer choices either contain information that was never said or incorrectly implied.

**6. Which of the following information from the passage best supports the author's claim that people shouldn't eat tilapia?**

The correct answer is D, "Tilapia has higher levels of inflammatory omega-6 fatty acids than omega-3 fatty acids." This information supports the author's claim that people should avoid consuming tilapia because the imbalance of omega-6 and omega-3 fatty acids can lead to chronic inflammation and other health problems.

Choice A, "Tilapia is a popular fish species that is consumed worldwide," is not relevant to the author's argument.

Choice B, "Tilapia is often raised in crowded, unsanitary conditions, which can lead to disease and infection," is a reason why people should avoid consuming tilapia, but it is not the strongest support for the author's claim as the passage doesn't state in which way humans are affected by it.

Choice C, "Many tilapia farms use large amounts of antibiotics and other chemicals to keep the fish healthy," is also a reason to avoid consuming tilapia, but it is not the strongest support for the author's claim as the passage doesn't state in which way humans are affected by antibiotics.

**7. Which of the following pieces of information from the passage does not contribute to making a good argument about why a flat tax is not more fair than a progressive tax?**

A good argument should NOT include unsupported claims or personal attacks. The sentence that reads as "millionaires and billionaires live eccentric lives, often from inheritances and not from their own work" feels more like a personal attack compared to other sentences in the passage.

**8. Which of the following statements accurately describes one of the recent developments in artificial intelligence mentioned in the passage?**

The passage states that deep learning algorithms allow machines to learn and improve on their own, without human intervention, and that this has led to major breakthroughs in fields such as image and speech recognition. Option A is incorrect, as the passage explicitly states that AI has made significant strides in recent years.

Option C is incorrect, as the passage states that reinforcement learning involves teaching machines to make decisions based on feedback from their environment, not random inputs.

Option D is incorrect, as the passage states that reinforcement learning has led to significant progress in areas such as robotics and autonomous vehicles, as well as game-playing AI systems.

**9. The graphic below displays the maximum temperature, which is the average highest temperature recorded on a daily basis in the United States. Which US state can be considered the hottest state?**

According to the legend on the right side of the figure, dark red represents the hottest temperatures (more than 85 degrees Fahrenheit). Most of the dark red shading is within the boundaries of the state of Arizona.

**10. Which of the following statements accurately summarizes the main points of the passage above?**

The correct answer is A. It accurately summarizes the main points of the passage, including the period of turmoil and upheaval during Nero's reign, his controversial behavior, his role in the Great Fire of Rome, and his eventual downfall at the hands of the Roman Senate. B, C, and D are all incorrect because they either contain significant inaccuracies or omit key points from the passage.

**11. What motivated Theo to explore the woods behind his house?**

He was an adventurous boy

**12. Which of the following sentences contains an opinion?**

The correct answer is C) A better solution would be to elect Supreme Court justices through a public voting process.

This sentence contains an opinion because it expresses a belief or judgment about the issue at hand, which is the appointment of Supreme Court justices. The phrase "a better solution" indicates that the author is advocating for a particular course of action, which is to elect justices through a public voting process. In contrast, the other sentences in the passage present facts, arguments, or critiques, but they do not express a clear opinion on the matter.

Answer choice A presents a statement about the contentious nature of the issue, answer choice B presents a critique of the current system, and answer choice D presents a potential benefit of public elections, but none of them express a subjective perspective or preference.

**13. What is the main idea of the passage?**

The correct answer is C) Publicly electing Supreme Court justices would increase transparency and accountability. While the passage does mention that the appointment of Supreme Court

justices is a contentious issue in American politics, this is not the main idea of the passage. The main idea is that the current system lacks transparency and is undemocratic, and that a better solution would be to elect Supreme Court justices through a public voting process. This would increase transparency and accountability, ensuring that justices are directly accountable to the people they serve and eliminating the influence of political elites. Option C directly states this idea, making it the correct answer.

Option A is too general and doesn't capture the main focus of the passage, which is on the problems with the current system and the proposed solution of publicly electing Supreme Court justices.

Option B is a supporting detail that explains one of the reasons why the current system is problematic, but it does not capture the main idea of the passage.

Option D is a supporting detail that explains how publicly electing Supreme Court justices would help to eliminate the influence of political elites in the appointment process, but it does not capture the main idea of the passage.

## 14. Which of the following statements best expresses the author's perspective on Thomas Edison?

The correct answer is C. The author's perspective on Thomas Edison is negative, as evidenced by the passage's pessimistic tone and critical language. The author suggests that Edison was a ruthless and unethical businessman who exploited other people's ideas and inventions, and that his inventions were often impractical and failed to live up to their hype. The passage's overall message is that Edison's legacy is not one of creativity and progress, but of greed and exploitation. Therefore, option C is the best choice as it accurately reflects the author's perspective on Thomas Edison.

## 15. Select all that apply. Which of the following details supports the main idea that people from the Roman Republic had a deep sense of patriotism?

The correct answers are B and C. Answer choices B and C further elaborate on the sense of patriotism Romans were characterized by. Other answer choices just talk about the logistics of the Roman Republic.

## 16. The instructions on how to cook the cake part of a tres leches dessert are below. According to the instructions, what is the second step with flour?

Add flour mix to egg yolk mix is the second step that involves flour.

## 17. Which of the following best captures the meaning of "when pigs fly" as used in the sentence?

The correct answer is A. Even if you didn't already know the meaning of the phrase "when pigs fly", you could've inferred the meaning of it by looking at the context of the sentence. The phrase "they've been at the bottom of the league for so long that it seems impossible for them to turn things around" gives us an idea that the phrase "when pigs fly" has to do with something difficult.

## 18. What inferences can you logically make about Theo after reading the passage?

The passage suggests that Theo is a curious and inquisitive person. He is described as an adventurous boy who decides to explore the woods behind his house. He also exhibits curiosity when he approaches the cabin despite feeling scared and uncertain. The passage does not suggest that Theo is an experienced woodsman or good at following directions, as he becomes lost and needs the help of the friendly dog to find his way. Finally, while Theo does feel scared when lost, the passage does not suggest that he is easily frightened.

## 19. What is the final shape of the paper?

The correct answer is B) A rectangle with a torn-off corner in the top right corner and a shaded square in the bottom right corner.To solve this question, the reader must carefully follow each of the instructions listed. The first step is to fold the paper in half, which creates a rectangle shape. The second step is to draw a circle in the top left corner of the paper and write their name in the center of the circle, underlining it twice. The third step is to draw a square in the bottom right corner of the paper and shade it in completely.The fourth step is to fold the paper in half again, which creates a smaller rectangle shape. The fifth step is to tear off the top right corner of the paper. The final shape of the paper is a rectangle with a torn-off corner in the top right corner and a shaded square in the bottom right corner, making answer choice B the correct answer.

**20. Select all that apply. What prediction(s) can the reader make about Theo after reading the passage?**

The answers to this question would be option A and B. The passage suggests that Theo's experience of getting lost in the woods will likely make him more cautious when exploring the woods in the future. In the beginning of the passage, we were told the year was 2018. Later in the passage, we were told the lady hasn't seen her son since the American Revolutionary War which happened in the 1700's. This leads us to believe there's something suspicious about that piece of information as the timeline does not make sense for the year 2018.  The passage does not provide enough information to suggest that Theo will adopt the friendly dog as his own, forget about his experience in the woods, or become a hermit and live in the wood

# Math Module

20 questions

**1.The largest animal to ever exist still lives to this day. A blue whale can grow up to be 30m long and weigh up to 180,000kg. Which of the following is the length of a blue whale in feet? (1m = 3.28ft)**

A. 141.8 ft
B. 33.28 ft
C. 9.14ft
D. 98.4ft

**2. A parking lot has 40 parking spaces where each spot measures 18 feet long by 9 feet wide. What is the total parking area available?**

A. $6,480 ft^2$

B. $162 ft^2$

C. $1,080 ft^2$

D. $1,921 ft^2$

**3. A teacher records the number of pages of assigned reading and the average time students spend completing the reading. Based on the data, the teacher notices that as the number of pages of assigned reading increases, the average time students spend completing the reading also increases. Explain the relationship between the two variables.**

A. As the number of pages of assigned reading increases, the average time students spend completing the reading decreases.
B. As the number of pages of assigned reading decreases, the average time students spend completing the reading increases.

C. As the number of pages of assigned reading increases, the average time students spend completing the reading also increases.
D. There is no relationship between the number of pages of assigned reading and the average time students spend completing the reading.

**4. A researcher collects data on the number of hours high school students spend watching television each week and the students' grade point averages (GPAs). The data show that as the number of hours spent watching television increases, the students' GPAs tend to decrease. What is the correlation between the number of hours spent watching television and the students' GPAs?**

A.Positive correlation
B.Negative correlation
C.No correlation
D.Cannot be determined

**5. In a game, a player flips a fair coin 3 times. What is the probability that the player will get exactly 2 heads and 1 tail?**
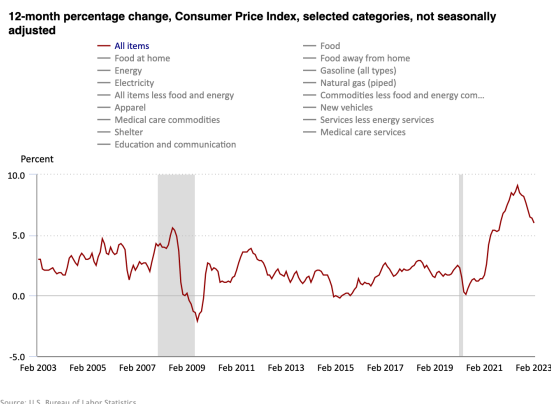
A. 3/8
B. 1/8
C. 1/4
D. ½

**6. Below is a summary of the number of crashes seen at a particular intersection during a six month study period. What was the median number of crashes experienced during the study period?**

A. 4.3
B. 3.5
C. 26.0
D. 2.5

**7. Which of the following statements is true about the line graph?**



12-month percentage change, Consumer Price Index, selected categories, not seasonally adjusted

Source: U.S. Bureau of Labor Statistics.

A. Inflation was at its lowest point around February 2008
B. Inflation was its highest around November 2008
C. Inflation was at its lowest point around February 2023
D. Inflation was at its lowest point around February 2009

**8. The table below shows the number of books read by four students during a summer reading challenge. Which student read 50% more books than Amy?**

| Student | Books Read |
|---------|-----------|
| Amy | 12 |
| Ben | 18 |
| Carol | 6 |
| Dan | 15 |

A. Ben
B. Carol
C. Dan
D. None of the above

**9. A bookstore sold 120 books last month. If 75% of the books sold were fiction books, how many fiction books were sold?**

A. 90
B. 60
C. 30
D. 105

**10. A store is having a 25% off sale on all its electronic items. If a pair of headphones originally costs $80, how much will it cost after the discount is applied?**

A. $65
B. $60
C. $40
D. $20

**11. A store offers a 20% discount on all items during a sale. If a customer buys a shirt originally priced at $45 and a pair of pants originally priced at $60, what will be the total cost of the purchase after the discount?**

A. $84
B. $91
C. $105
D. $126

A. $\frac{-6}{2}, \frac{5}{8}, \sqrt{49}, \sqrt{60}$

B. $\frac{-6}{2}, \sqrt{60}, \frac{5}{8}, \sqrt{49}$

C. $\frac{5}{8}, \frac{-6}{2}, \sqrt{60}, \sqrt{49}$

D. $\frac{5}{8}, \sqrt{49}, \frac{-6}{2}, \sqrt{60}$

**12.  A coffee shop sells small cups of coffee for $1.50 each, and large cups of coffee for $2.25 each. If a customer buys 4 small cups and 3 large cups of coffee, how much will the total cost be? Choose the correct answer.**

A. $10.50
B. $11.25
C. $12.75
D. $13.50

**16. Find the range of the following set of numbers: 12,7,20,9,15**

A. 15
B. 13
C. 8
D. 10

**13. Select a possible simplified version of the following equation: 8(x-4)$^2$ = 120**

A. 8x$^2$-64x=248
B.(8x-32)$^2$=120
C. 8x$^2$-16x=120
D. 8x$^2$=136

**17. Evaluate the expression (1/4+1/2)×(2/3−1/6)**

A. 1/4
B. 1/2
C. 1
D. 3/8

**18. Evaluate the following expression: 5+3×(4−2)÷(1+1)**

A. 11
B. 10
C. 7
D. 8

**14. Solve for $X$ in the following equation: 3x-7=2(x+4)**

A. $X = -1$
B. $X = 15$
C. $X = 3$
D. $X = 1$

**15. From the following list of numbers, which one is ordered from least to greatest?**

**19. What is the difference between $7\frac{3}{12}$ and $3\frac{1}{6}$?**

A. 4 2/6
B. 4 1/12
C. 4 1/6
D. 4 ⅓

**20. Which of the following is equivalent to 12.5%?**

A. 5/9
B. 1/8
C. 0.0125
D. 1/10

Math Module Answer Key

| MATH QUESTION # | ANSWER(S) |
|---|---|
| 1. | D |
| 2. | A |
| 3. | C |
| 4. | B |
| 5. | A |
| 6. | B |
| 7. | D |
| 8. | A |
| 9. | A |
| 10. | B |
| 11. | A |
| 12. | C |
| 13. | A |
| 14. | B |
| 15. | A |
| 16. | B |
| 17. | D |
| 18. | D |
| 19. | B |
| 20. | B |

**1.The largest animal to ever exist still lives to this day. A blue whale can grow up to be 30m long and weigh up to 180,000kg. Which of the following is the length of a blue whale in feet? (1m = 3.28ft)**

Convert the length of a blue whale from meters to feet. We were told 1 meter is equal to 3.28 feet.

Use ratios to calculate the length of a blue whale in feet.

$$\frac{1m}{3.28ft} = \frac{30m}{x}$$

Where $x$ is a variable that represents the length of a blue whale in feet.

Cross multiply and then solve for $x$

$$1m * x = 3.28ft * 30m$$
$$x = 98.4ft$$

**2. A parking lot has 40 parking spaces where each spot measures 18 feet long by 9 feet wide. What is the total parking area available?**

The area of a square or rectangle can be calculated by multiplying the width by the length.

The area of one parking spot is

18ft×9ft=162ft2 per spot

If there are 40 parking spots, the total area for all the parking spots is

$$162ft^2 \times 40 = 6480ft^2$$

**3. A teacher records the number of pages of assigned reading and the average time students spend completing the reading. Based on the data, the teacher notices that as the number of pages of assigned reading increases, the average time students spend completing the reading also increases. Explain the relationship between the two variables.**

To answer this question, analyze the given information:

As the number of pages of assigned reading increases, the average time students spend completing the reading also increases.
The two variables are moving in the same direction (both increase).

This relationship indicates that as the number of pages of assigned reading increases, the average time students spend completing the reading also increases.

**4. A researcher collects data on the number of hours high school students spend watching television each week and the students' grade point averages (GPAs). The data show that as the number of hours spent watching television increases, the students' GPAs tend to decrease. What is the correlation between the number of hours spent watching television and the students' GPAs?**

To answer this question, analyze the relationship between the two variables:

As the number of hours spent watching television increases, the students' GPAs tend to decrease.

The two variables are moving in opposite directions (one increases while the other decreases). This relationship indicates a negative correlation between the number of hours spent watching television and the students' GPAs.

**5. In a game, a player flips a fair coin 3 times. What is the probability that the player will get exactly 2 heads and 1 tail?**

Step 1: Find the total number of outcomes when flipping the coin 3 times.
When flipping a coin, there are 2 possible outcomes: heads (H) or tails (T). Since the coin is flipped 3 times, the total number of outcomes is 2 is raised to the third power. Therefore,
$2 * 2 * 2 = 8$

Step 2: Determine the number of outcomes with exactly 2 heads and 1 tail.
The possible outcomes with exactly 2 heads and 1 tail are: HHT, HTH, and THH. There are 3 such outcomes.

Step 3: Calculate the probability.
Probability = (Number of desired outcomes) / (Total number of outcomes)
Probability = 3 / 8

The probability of getting exactly 2 heads and 1 tail when flipping a fair coin 3 times is 3/8.

**6. Below is a summary of the number of crashes seen at a particular intersection during a six month study period. What was the median number of crashes experienced during the study period?**

The median can be calculated by sorting all the numbers in increasing order and then taking the average of the two numbers in the middle.

In increasing order, the number of crashes during the six month study period go like this:

1,3,3,4,5,10

The two numbers in the middle of the list are 3 and 4. The average of these two can be found by adding them together and dividing the result by 2.

$$\frac{3+4}{2} \; = \; 3.5$$

**7. Which of the following statements is true about the line graph?**

According to the red line of the graph, the lowest point of the curve occurred around February 2009.

**8. The table below shows the number of books read by four students during a summer reading challenge. Which student read 50% more books than Amy?**

First, find out how many books are 50% more than the number of books read by Amy. Amy read 12 books, so:

50% of 12 books = 0.5 * 12 = 6 books

Now, add this number to the number of books read by Amy because the question is asking who read 50% more.

12 books + 6 books = 18 books

We are looking for the student who read 18 books. From the table, we can see that Ben read 18 books.

**9. A bookstore sold 120 books last month. If 75% of the books sold were fiction books, how many fiction books were sold?**

Strategy:
Convert the percentage to a decimal.
Multiply the total number of books sold by the decimal value.

Step 1: Convert the percentage to a decimal

75%=0.75

Step 2: Multiply the total number of books sold by the decimal value

Total books sold = 120
Fiction books sold = Total books sold × Decimal value = 120 × 0.75 = 90

The bookstore sold 90 fiction books last month.

**10. A store is having a 25% off sale on all its electronic items. If a pair of headphones originally costs $80, how much will it cost after the discount is applied?**

Strategy:
Calculate the discount amount.
Subtract the discount amount from the original price.

Step 1: Calculate the discount amount
Discount rate = 25%
Original price of headphones = $80
Discount amount = Original price × Discount rate = $80 × 0.25 = $20

Step 2: Subtract the discount amount from the original price.
Discounted price = Original price - Discount amount = $80 - $20 = $60

After the 25% discount is applied, the headphones will cost $60.

**11. A store offers a 20% discount on all items during a sale. If a customer buys a shirt originally priced at $45 and a pair of pants originally priced at $60, what will be the total cost of the purchase after the discount?**

Strategy:
Calculate the discount amount for each item.
Subtract the discount amount from the original price to find the sale price of each item.
Add the sale prices to find the total cost.

Step 1: Calculate the discount amount for each item
Discount rate = 20% = 0.20
Shirt discount = $45 × 0.20 = $9
Pants discount = $60 × 0.20 = $12

Step 2: Subtract the discount amount from the original price to find the sale price of each item
Shirt sale price = $45 - $9 = $36
Pants sale price = $60 - $12 = $48

Step 3: Add the sale prices to find the total cost
Total cost = Shirt sale price + Pants sale price
Total cost = $36 + $48 = $84

The total cost of the purchase after the discount will be $84. The correct answer is  $84.

**12.  A coffee shop sells small cups of coffee for $1.50 each, and large cups of coffee for $2.25 each. If a customer buys 4 small cups and 3 large cups of coffee, how much will the total cost be? Choose the correct answer.**

Strategy:
Calculate the cost of the small cups of coffee.
Calculate the cost of the large cups of coffee.
Add the costs to find the total cost.

Step 1: Calculate the cost of the small cups of coffee
Cost per small cup = $1.50
Number of small cups = 4
Total cost for small cups = $1.50 × 4 = $6.00

Step 2: Calculate the cost of the large cups of coffee
Cost per large cup = $2.25

Number of large cups = 3
Total cost for large cups = $2.25 × 3 = $6.75

Step 3: Add the costs to find the total cost
Total cost = Total cost for small cups + Total cost for large cups
Total cost = $6.00 + $6.75 = $12.75

The total cost for 4 small cups and 3 large cups of coffee will be $12.75. The correct answer is $12.75

**13. Select a possible simplified version of the following equation:**

To solve this algebra problem, follow these steps:

Simplify the exponent expression $(x - 4)^2$ is the same as $(x - 4)(x - 4)$
So our equation becomes

$8\{(x - 4)(x - 4) \} = 120$

Use the FOIL method to simplify $(x - 4)(x - 4)$

$x.x + x * - 4 + - 4 * x + - 4 * - 4$

Which simplifies to

$x^2 + - 4x + - 4x + + 16$

Which further simplifies to

$x^2 + - 8x + 16$

When you multiply opposite signs (example: plus times a minus), the result is a negative. When you multiply the same signs (example: negative times a negative), the result is a positive. Therefore,

+(-8x) becomes -8x
+(+16) becomes 16

Therefore, 8[(x-4)(x-4)]=120 becomes 8[x²-8x+16]=120

Using PEMDAS, we multiply what's inside the parentheses by 8.

$$8[x^2 - 8x - 16] = 120$$

$$8x^2 - 64x - 128 = 120$$

Which further simplifies to

$$8x^2 - 64x = 120 - 128$$

$$8x^2 - 64x = -8$$

### 14. Solve for $X$ in the following equation:

To solve this algebra problem, follow these steps:

Distribute the 2 on the right side of the equation.
Move all x terms to one side of the equation and all constants to the other side.
Solve for $x$

.

Step 1: Distribute the 2 on the right side

$3x - 7 = 2 * x + 2 * 4$
$3x - 7 = 2x + 8$

Step 2: Move all  x terms to one side and all constants to the other side

$3x - 2x = 7 + 8$

Now that the x terms are on one side and the constants are on the other side, perform the arithmetic.
 $3x - 2x = x$
and
 $8 + 7 = 15$

Therefore, the equation becomes  $x = 15$

### 15. From the following list of numbers, which one is ordered from least to greatest?

Convert all the numbers into decimal form and then we can arrange them from least to greatest.

$5/8 = 0.625$
$-6/2 = -3$
$\sqrt{49} = 7$

A square root $\sqrt{49}$ is asking us what number multiplied by itself equals 49. In this case, 7 does.

$\sqrt{60}$, there is no whole number that after multiplied by itself equals 60. However, we can approximate what the number could be. So we know that $\sqrt{60}$ is equal to some number that after multiplied by itself is equal to 60, let's do some trial and error and see if we can get close to 60. Seven times itself equals 49, eight times itself equals 64. So we know that whatever number multiplied by itself is somewhere between 7 and 8. That is enough info to know where $\sqrt{60}$ falls in the least of least to greatest. We know $\sqrt{60}$ is more than 7.0 but it's less than 8.0.

Therefore, from least to greatest

$$-6/2, 5/8, \sqrt{49}, \sqrt{60}$$

## 16. Find the range of the following set of numbers: 12,7,20,9,15

To find the range of a set of numbers, follow these steps:
1) Identify the smallest and largest numbers in the set.
2) Subtract the smallest number from the largest number.

Step 1: Identify the smallest and largest numbers
In the given set 12,7,20,9,15,the smallest number is 7 and the largest number is 20.

Step 2: Subtract the smallest number from the largest number

Range = Largest number - Smallest number

Range=20−7

Range=13

The range of the given set of numbers is 13. The correct answer is 13.

## 17. Evaluate the expression
## (1/4+1/2)×(2/3−1/6)

Use PEMDAS to solve this question. Follow the steps in the correct order:
Parentheses (P)
Exponents (E)

Multiplication and Division (M and D)
Addition and Subtraction (A and S)

Step 1: Parentheses
Evaluate the expressions inside the parentheses:

$$(1/4+1/2) \quad \text{and}$$

(2/3−1/6)

Convert the fractions to decimals and solve the inside of the parentheses e.g. 1 divided by 4 equals 0.250 and 1 divided by 2 equals 0.5

$$(0.250+0.500)=0.750 \quad \text{and}$$

$$(0.667−0.1667)=0.500$$

Step 2: Exponents
There are no exponents in the expression, so we can skip this step.

Step 3: Multiplication and Division
Multiply the two fractions:

$$0.750×0.500=0.375$$

Step 4: Addition and Subtraction
There are no addition or subtraction operations left, so the final result is 0.375. The provided options are in fraction form. Convert 0.375 into a fraction.

$$375/1000$$

Simplify the fraction. The greatest common factor (GCF) of 375 and 1000 is 125.

We divide the numerator and denominator by 125 to get simplified fraction of 3/8

**18. Evaluate the following expression: 5+3×(4−2)÷(1+1)**

Recall that PEMDAS stands for Parentheses, Exponents, Multiplication and Division (from left to right), and Addition and Subtraction (from left to right). Apply these rules in the given order to solve the expression:

$$5+3\times(4-2)\div(1+1)$$

Step 1: Parentheses
First, solve the expressions within the parentheses:

$$(4-2)=2(1+1)=2$$

Now, the expression becomes

$$5+3\times2\div2$$

Step 2: Exponents
There are no exponents in this expression, so we can skip this step.

Step 3: Multiplication and Division (from left to right)
Next, perform multiplication and division in the order they appear, from left to right:

$$3\times2=6$$

The expression then becomes

$$5+6\div2$$

Now, divide:

$$6\div2=3$$

The expression becomes:

$$5+3$$

Step 4: Addition and Subtraction (from left to right)

Finally, perform addition and subtraction in the order they appear, from left to right:

$$5+3=8$$

The answer is 8

## 19. What is the difference between $7\frac{3}{12}$ and $3\frac{1}{6}$?

The goal here is to subtract $3\frac{1}{6}$ from $7\frac{3}{12}$

but before we can do that, we need to get rid of the mixed numbers (the 3 in $3\frac{1}{6}$

and the 7 in $7\frac{3}{12}$). After we do that, you can only add and subtract fractions when they have a common denominator (bottom number). We will need to convert our fractions to equivalent fractions that just have a common denominator between the two. Once that occurs, we can subtract the two fractions.

Step 1: Simplify the mixed numbers $7\frac{3}{12}$ can be simplified since $\frac{3}{12}$ can be reduced to a simpler form. The greatest common factor of 3 and 12 is 3. So, $\frac{3}{12}$ becomes

$$3÷3=1$$
$$12÷3=4$$

Now, the simplified fraction becomes 1/4. So, $7\frac{3}{12}$ simplifies to $7\frac{1}{4}$. The other mixed number, $3\frac{1}{6}$, is already in its simplest form and there's no greatest common factor that can make the fraction 1/6 smaller.

Step 2: Convert the mixed numbers to improper fractions. $7\frac{1}{4}$ becomes

$$(7×4)+1=29$$

The improper fraction is 29/4. $3\frac{1}{6}$ becomes
(3×6)+1=19

The improper fraction is 19/6.

Step 3: Find a common denominator
The least common factor (LCF) of 4 and 6 is 12. So, the common denominator for the two fractions is 12.

Step 4: Subtract the fractions
Convert both fractions to equivalent fractions with the common denominator:

$$29/4=(29×3)/(4×3)=87/12$$

19/6=(19×2)/(6×2)=38/12

Now, subtract the fractions:
$$(87/12)−(38/12)=(87−38)/12=(49/12)$$

The difference (subtraction) between 7 3/12 and 3 1/6 is 49/12, which can be expressed as a mixed number: 4 1/12.

## 20. Which of the following is equivalent to 12.5%?

The procedure to convert from percentages to decimals or fractions is as follows:
Divide the percentage always by 100

$$12.5\% \div 100 = 0.125$$

We see that none of the answer choices are 0.125, so maybe we need to convert the number with decimals into an equivalent fraction and see if one of the answer choices is on there but in fraction form. To convert a number with decimals into a fraction, do the following steps.

Extract the decimals and divide them by 10 if there is one decimal place, divide by 100 if there are two decimal places, or divide by 1000 if there are three decimal places. Remember decimals are the numbers to the right of the point so 125 in this case. For this problem, there are three decimal places (125) therefore we divide it by 1000.

$$125/1000$$

Find the greatest common factor (GCF) of 125 and 1,000. The greatest common factor is the largest number that neatly divides into 125 AND into 1,000. If you do some trial and error and just punch in different numbers into the calculator, you'll see the number 125 divides neatly into 125 and into 1,000 because

$$125/125 \ = \ 1 \ \ \text{and}$$
$$1000/125 \ = \ 8$$

We put those two together to get 1/8

You need to learn how to convert from decimals to fractions but a trick would have been to take all the answer choices given as fractions and convert them to decimals to see if any other were equal to 0.125

# Science Module

20 questions

**1. Which hormone is responsible for regulating blood glucose levels?**

A. Insulin
B. Glucagon
C. Thyroxine
D. Epinephrine

**2. Which factor is least likely to affect the rate of a chemical reaction?**

A. Temperature
B. Color of reactants
C. Concentration of reactants
D. Presence of a catalyst

**3. Which hormone is responsible for regulating calcium levels in the body?**

A. Insulin
B. Glucagon
C. Thyroid hormone
D. Parathyroid hormone

**4. Which accessory organ of the digestive system produces bile?**

A. Liver
B. Pancreas
C. Gallbladder
D. Appendix

**5. Which of the following statements about adaptive immunity is true?**

A. Adaptive immunity provides immediate protection against pathogens upon first exposure.
B. Adaptive immunity is non-specific and responds identically to all pathogens.

C. Adaptive immunity has memory, allowing for a faster and more potent response upon subsequent exposures to the same pathogen.
D. Adaptive immunity is primarily mediated by physical barriers like skin and mucous membranes.

**6. Within a eukaryotic cell, there is an organelle that is often referred to as the "powerhouse" due to its role in producing ATP. However, this organelle also plays a crucial role in the programmed cell death process known as apoptosis. Which of the following statements about this organelle is FALSE?**

A. It contains its own DNA, separate from the cell's nuclear DNA.
B. It is believed to have originated from an ancient symbiotic relationship between a primitive eukaryote and a prokaryote.
C. It has a double membrane structure.
D. It plays a role in the calcium signaling pathway..

**7. What is the primary source of energy for muscle contraction?**

A. Adenosine monophosphate (AMP)
B. Adenosine diphosphate (ADP)
C. Adenosine triphosphate (ATP)
D. Glycogen

**8. During inhalation in the respiratory process, which of the following events occurs to facilitate the entry of air into the lungs?**

A. The diaphragm contracts and moves upward.
B. The volume of the thoracic cavity decreases.
C. The intercostal muscles relax and pull the ribs inward.
D. The diaphragm contracts and flattens, increasing the volume of the thoracic cavity.

## 9. Which of the following statements is true about chemical reactions?

A. Chemical reactions always release energy.
B. In a chemical reaction, the total mass of the reactants is always greater than the total mass of the products.
C. Chemical reactions involve the rearrangement of atoms to form new substances.
D. Chemical reactions occur only in the presence of heat.

## 10. Which of the following is true about a saturated solution?

A. It contains less solute than the maximum amount it can dissolve.
B. It can dissolve more solute at the current temperature.
C. It contains the maximum amount of solute that can be dissolved at the current temperature.
D. It is always a solid.

## 11. In which part of the female reproductive system does fertilization of an egg typically occur?

A. Uterus
B. Ovaries
C. Fallopian Tubes
D. Vagina

## 12. Which of the following is responsible for producing bile, which emulsifies fats for digestion in the small intestine?

A. The pancreas
B. The gallbladder
C. The liver
D. The stomach

## 13. Select all that apply. Which of the following compounds are ionic?

A. $NH_3$
B. $NCl_3$
C. KCl
D. $MgCl_2$

## 14. Which of the following units would you most likely use to measure the mass of baking soda as part of a scientific lab experiment?

A. kg
B. g
C. $cm^3$
D. mL

## 15. Which structure produces and stores sperm in the male reproductive system?

A. Testes
B. Epididymis
C. Vas deferens
D. Seminal vesicles

**16. Which of the following substances commonly undergoes sublimation?**

A. Water
B. Dry ice
C. Iron
D. Gold

**17. Select all that apply. Which of the following is one of the functions of the human endocrine system?**

A. Homeostasis
B. Inter-glad communication
C. Growth and development
D. Vitamin D production

**18. Which type of muscle is under involuntary control and is found in the walls of internal organs?**

A. Skeletal muscle
B. Cardiac muscle
C. Smooth muscle
D. Striated muscle

**19.What is the function of antibodies in the immune system?**

A. To engulf and digest foreign substances
B. To activate T cells
C. To neutralize or destroy pathogens
D. To produce cytokines that recruit immune cells

**20. Which of the following structures is responsible for transporting urine from the kidney to the bladder?**

A. Urethra
B. Bladder
C. Kidney
D. Ureter

# Science Module Answer Key

| SCIENCE QUESTION # | ANSWER(S) |
|---|---|
| 1. | A |
| 2. | B |
| 3. | D |
| 4. | A |
| 5. | C |
| 6. | D |
| 7. | C |
| 8. | D |
| 9. | C |
| 10. | C |
| 11. | C |
| 12. | C |
| 13. | B, C |
| 14. | B |
| 15. | A |
| 16. | B |
| 17. | A & B & C |
| 18. | C |
| 19. | C |
| 20. | D |

## 1. Which hormone is responsible for regulating blood glucose levels?

Insulin is produced by the beta cells of the pancreas and is responsible for lowering blood glucose levels by promoting glucose uptake into cells. Glucagon, on the other hand, is produced by the alpha cells of the pancreas and raises blood glucose levels by promoting glycogenolysis and gluconeogenesis

## 2.   Which factor is least likely to affect the rate of a chemical reaction?

a) Incorrect - Temperature affects the rate of a chemical reaction by providing kinetic energy to the reactant molecules. An increase in temperature typically increases the reaction rate as molecules move faster and collide more frequently and with greater energy.

b) Correct - The color of reactants does not affect the rate of a chemical reaction, as it is not related to the reaction kinetics or the nature of the substances involved.

c) Incorrect - Concentration of reactants affects the rate of a chemical reaction, as a higher concentration usually results in more frequent collisions between reactant molecules, increasing the reaction rate.

d) Incorrect - The presence of a catalyst can significantly affect the rate of a chemical reaction by providing an alternative reaction pathway with a lower activation energy, increasing the rate of the reaction without being consumed in the process.

## 3. Which hormone is responsible for regulating calcium levels in the body?

Parathyroid hormone (PTH) is produced by the parathyroid glands and is responsible for regulating calcium levels in the body. It acts to increase calcium levels in the blood by promoting the breakdown of bone tissue and increasing the absorption of calcium from the intestines and kidneys. Insulin and glucagon are hormones produced by the pancreas that regulate blood glucose levels, while thyroid hormone regulates metabolic rate and growth.

## 4. Which accessory organ of the digestive system produces bile?

a) The liver produces bile, which is essential for the digestion and absorption of fats in the small intestine.

b) The pancreas produces digestive enzymes and hormones, such as insulin and glucagon, but it does not produce bile.

c) The gallbladder stores and concentrates bile produced by the liver, but it does not produce bile itself.

d) The appendix is a small, finger-like pouch that is connected to the large intestine, but its function is not well understood and it does not produce bile.

## 5. Which of the following statements about adaptive immunity is true?

A) False. Adaptive immunity does not provide immediate protection upon first exposure to a pathogen. Instead, it takes time to develop a specific response. Innate immunity provides the immediate, non-specific defense.

B) False. Adaptive immunity is highly specific. It tailors its response to specific pathogens, distinguishing between different invaders.

C) True. One of the hallmarks of adaptive immunity is its ability to remember previous exposures to pathogens. This memory allows the immune system to respond more rapidly and effectively upon subsequent exposures to the same pathogen.

D) False. Physical barriers like skin and mucous membranes are part of the innate immune system, not the adaptive immune system. Adaptive immunity is primarily mediated by specialized cells like T cells and B cells and the antibodies they produce.

## 6. Within a eukaryotic cell, there is an organelle that is often referred to as the "powerhouse" due to its role in producing ATP. However, this organelle also plays a crucial role in the programmed cell death process known as apoptosis. Which of the following statements about this organelle is FALSE?

The organelle mentioned in the question header is the mitochondrion.

Mitochondria are involved in ATP production, apoptosis, contain their own DNA, have a double membrane, and are believed to have originated from an ancient symbiotic relationship with a prokaryote. While mitochondria can buffer calcium levels, the primary organelle for calcium signaling is the endoplasmic reticulum, not the mitochondria.

## 7. What is the primary source of energy for muscle contraction?

a) Adenosine monophosphate (AMP) is not the primary source of energy for muscle contraction. It is a product of the breakdown of ATP and can be converted back into ATP.

b) Adenosine diphosphate (ADP) is also not the primary energy source for muscle contraction. It is an intermediate product when ATP is broken down to release energy.

c) Adenosine triphosphate (ATP) is the primary source of energy for muscle contraction. ATP is broken down into ADP and inorganic phosphate (Pi) to release energy, which powers muscle contraction.

d) Glycogen is a storage form of glucose in muscles and the liver. It can be broken down into glucose, which is then used to produce ATP, but it is not the direct source of energy for muscle contraction.

## 8. During inhalation in the respiratory process, which of the following events occurs to facilitate the entry of air into the lungs?

A) This statement is incorrect. During inhalation, the diaphragm contracts and moves downward (or flattens), not upward.

B) This statement is the opposite of what happens. Inhalation increases the volume of the thoracic cavity, creating a negative pressure that draws air into the lungs.

C) This statement is also incorrect. During inhalation, the external intercostal muscles contract, lifting the ribs outward and upward, further increasing the volume of the thoracic cavity.

D) This statement is correct. The contraction and flattening of the diaphragm play a pivotal role in increasing the thoracic cavity's volume, facilitating the entry of air into the lungs.

## 9. Which of the following statements is true about chemical reactions?

a) Incorrect - Chemical reactions can either release energy (exothermic) or absorb energy (endothermic).

b) Incorrect - According to the law of conservation of mass, the total mass of reactants is equal to the total mass of products in a chemical reaction.

c) Correct - Chemical reactions involve the rearrangement of atoms to form new substances, by breaking existing chemical bonds and forming new ones.

d) Incorrect - Chemical reactions can occur under various conditions, not only in the presence of heat.

## 10. Which of the following is true about a saturated solution?

a) Incorrect - An unsaturated solution contains less solute than the maximum amount it can dissolve.

b) Incorrect - A saturated solution cannot dissolve more solute at the current temperature, as it already contains the maximum amount of solute that can be dissolved.

c) Correct - A saturated solution contains the maximum amount of solute that can be dissolved at the current temperature, reaching a state of equilibrium between the dissolved solute and any undissolved solute.

d) Incorrect - A saturated solution is not always a solid. It can be a liquid, where the solvent has dissolved the maximum amount of solute possible at a given temperature.

## 11. In which part of the female reproductive system does fertilization of an egg typically occur?

Fertilization, which is the fusion of sperm and egg, typically occurs in the fallopian tubes. The fallopian tubes connect the ovaries to the uterus. If an egg is fertilized, it moves to the uterus where it can implant in the uterine wall and develop throughout pregnancy.

## 12. Which of the following is responsible for producing bile, which emulsifies fats for digestion in the small intestine?

The digestive system is responsible for breaking down food into nutrients that can be absorbed and utilized by the body. The digestive system includes organs such as the mouth, esophagus, stomach, small intestine, and large intestine, as well as accessory organs such as the liver, pancreas, and gallbladder.

The liver is the largest glandular organ in the body and is located in the upper right side of the abdomen. One of the functions of the liver is to produce bile, which is a greenish-yellow fluid that is essential for the digestion and absorption of fats. Bile contains bile salts, which emulsify fats into smaller droplets, making them more accessible to enzymes that break them down into fatty acids and glycerol.

The bile produced by the liver is stored and concentrated in the gallbladder before being released into the small intestine through the common bile duct. The pancreas also secretes pancreatic enzymes into the small intestine to further break down the fats, proteins, and carbohydrates.

Option A is incorrect because the pancreas secretes enzymes that aid in the digestion of carbohydrates, proteins, and fats, but it does not produce bile. Option B is incorrect because the

gallbladder stores and releases bile, but it does not produce bile. Option D is incorrect because the stomach secretes gastric juice that contains hydrochloric acid and enzymes that begin the breakdown of proteins, but it does not produce or store bile.

## 13. Which of the following compounds are ionic?



An ionic compound is made of positively and negatively charged ions held together by electrostatic attraction, usually formed between a metal and a nonmetal (e.g., NaCl).

$NH_3$ – Covalent: Nonmetal + nonmetal (nitrogen and hydrogen) share electrons.

$NCl_3$ – Covalent: Nonmetal + nonmetal (nitrogen and chlorine) share electrons.

KCl – Ionic: Metal (potassium) transfers electrons to nonmetal (chlorine).

$MgCl_2$ – Ionic: Metal (magnesium) transfers electrons to nonmetal (chlorine).

## 14. Which of the following units would you most likely use to measure the mass of baking soda as part of a scientific lab experiment?

To measure the mass of something, we can use kilograms (kg) or grams (g). However, kilograms is more appropriate to be used when measuring the mass of a large object like a human or an animal. Grams are more appropriate when measuring the mass of very small objects like a pinch of baking soda or a pinch of sugar when cooking a recipe.

cm^3 and mL are units for volume. Volume refers to the 3D space an object takes. For example, when we say "I bought a gallon of milk" (gallon is another volume unit), a gallon refers to how much 3D space that milk is taking. It is not referring to how much a milk weighs.

## 15. Which structure produces and stores sperm in the male reproductive system?

a) The testes produce sperm, but they do not store them. Sperm production occurs in the seminiferous tubules within the testes.

b) The epididymis is responsible for storing and maturing sperm. Sperm travels from the testes to the epididymis, where they mature and are stored until ejaculation.

c) The vas deferens is a muscular tube that transports mature sperm from the epididymis to the ejaculatory duct during ejaculation.

d) The seminal vesicles produce a significant portion of the seminal fluid that nourishes and protects sperm during ejaculation, but they do not produce or store sperm.

## 16. Which of the following substances commonly undergoes sublimation?

Sublimation is a process where a solid turns into a gas without first becoming a liquid. It is the opposite of deposition, where a gas turns directly into a solid without first becoming a liquid.

Water: Incorrect. While water can undergo sublimation under specific conditions, it is more commonly associated with melting and boiling.Iron: Incorrect.

Iron typically transitions from solid to liquid at its melting point and from liquid to gas at its boiling point. It does not commonly undergo sublimation.

Dry Ice (solid carbon dioxide): Correct. Dry ice sublimates, meaning it transitions directly from a solid to a gas without passing through the liquid phase.Gold: Incorrect.

Gold melts and boils but does not commonly undergo sublimation.

## 17. Select all that apply. Which of the following is one of the functions of the human endocrine system?

Homeostasis is the process by which the body maintains a consistent internal environment despite external fluctuations. In the endocrine system, homeostasis uses hormones to regulate various physiological parameters within set limits.

Example: The hormone insulin, produced by the pancreas, regulates blood glucose levels. When blood sugar rises after a meal, the pancreas releases insulin, which facilitates the uptake of glucose by cells, thereby lowering blood sugar to maintain it within a tight range.

Inter-gland communication refers to the coordinated interaction between different endocrine glands to achieve a specific physiological response. Some glands release hormones that act on other glands, stimulating or inhibiting their hormone production.

Example: The hypothalamus produces corticotropin-releasing hormone (CRH), which stimulates the pituitary gland to release adrenocorticotropic hormone (ACTH). ACTH then prompts the adrenal cortex to produce cortisol. This is an example of a hormone cascade.

The endocrine system oversees various growth and developmental milestones using specific hormones.

Example: During puberty, the pituitary gland releases increased amounts of luteinizing hormone (LH) and follicle-stimulating hormone (FSH). These hormones act on the gonads (ovaries in females and testes in males) to produce sex hormones (like estrogen and testosterone), which facilitate the development of secondary sexual characteristics such as breast development or facial hair growth.

Vitamin D production is part of the integumentary system, not the endocrine system.

### 18. Which type of muscle is under involuntary control and is found in the walls of internal organs?

A) Skeletal muscle is under voluntary control and is responsible for body movement, posture, and maintaining body position.

B) Cardiac muscle is also under involuntary control but is found exclusively in the heart.

C) Smooth muscle is under involuntary control and is found in the walls of internal organs such as the digestive tract, blood vessels, and the uterus.

D) Striated muscle refers to both skeletal and cardiac muscle, which have a striped appearance under the microscope. This answer choice is not specific enough.

### 19. .What is the function of antibodies in the immune system?

Antibodies, also known as immunoglobulins, are proteins produced by B cells in response to exposure to foreign substances such as bacteria or viruses. They work by binding to the surface of the pathogen and marking it for destruction by other immune cells, or by neutralizing the pathogen's ability to infect host cells. While macrophages are responsible for phagocytosis, T cells are involved in activating immune responses and producing cytokines that recruit immune cells.

**20. Which of the following structures is responsible for transporting urine from the kidney to the bladder?**

The ureter is a muscular tube that connects the kidney to the bladder and is responsible for transporting urine from the renal pelvis to the bladder for storage and elimination. The urethra is the tube that carries urine out of the body, while the bladder is a muscular sac that stores urine until it is eliminated

# English Module

20 questions

**1. Which of the following sentences is a thesis statement?**

A. I love visiting the beach during summer because of the warm weather.
B. The history of ancient Egypt spans thousands of years and includes many fascinating pharaohs.
C. The rise of social media platforms has significantly impacted human communication, leading to both positive interactions and challenges in mental well-being.
D. Last weekend, I attended a music concert with my friends.

**2. Which of the following sentences is NOT correctly written?**

A. Either he or his brother is coming to the party.
B. Either she or her friends were going to the beach yesterday.
C. Either you or I am going to have to apologize.
D. Either they or he are going to be late for the meeting.

**3. Select all that apply. Which of the following sentence uses incorrect punctuation?**

A. The owl has a distinct eye color pattern.
B. The child wore a bear themed costume to the party.
C. She bought a chocolate chip cookie from the bakery.
D. She bought the latest eye catching dress from the store.

**4. Which of the following sentences uses correct English spelling?**

A. I always loose my keys, it's so frustrating.
B. The screws on the chair were too losoe, so I tightened them.
C. She wanted to loose weight for the wedding, so she started a diet.
D. The cat got lose and ran out of the house.

**5. Which of the following sentences best demonstrates the use of transition words to enhance clarity in writing when comparing two different approaches to problem-solving?**

A. Some people prefer a systematic approach to problem-solving, while others rely on intuition.
B. Some people prefer a systematic approach to problem-solving, others rely on intuition.
C. A systematic approach to problem-solving, on the other hand, others rely on intuition.
D. Some people prefer a systematic approach to problem-solving, so others rely on intuition.

**6. Select all that apply. Which of the following could function well as a topic sentence in a well-organized paragraph?**

A. The pervasive impact of climate change has been felt across various ecosystems, necessitating immediate global action.
B. Advancements in technology over the past decade have revolutionized the way

businesses operate and interact with their customers.

C. Mindfulness practices, rooted in ancient traditions, have gained immense popularity in recent years for their proven benefits in reducing stress and improving overall well-being.

D. After grabbing my morning coffee, I usually take a short walk in the park before heading to work.

**7. Which of the following sentences is most appropriate for a professional business proposal?**

A. Our innovative product will significantly impact the market landscape.

B. The new product is, like, totally going to revolutionize the market.

C. Dude, this product is going to blow everyone's minds!

D. The product is pretty cool and stuff, and people will like it.

**8. Which of the following sentences uses proper English?**

A. Who's going to the party tonight?
B. Whose going to the party tonight?
C. Who's jacket is this?
D. Whose jacket is you wearing?

**9. Which of the following sentences best demonstrates the use of grammar to enhance clarity in writing when describing a person's feelings about an event?**

A. Her heart raced excited and nervous as the day of the big presentation approached.

B. Excited and nervous, her heart raced as the day of the big presentation approached.

C. As the day of the big presentation approached her heart raced, excited and nervous.

D. Excited, and nervous, her heart raced as the day of the big presentation approached.

**10. Which of the following sentences DOES NOT use correct punctuation?**

A. Let's eat grandma!
B. It looked like it was about to rain, so I desisted from going on a run.
C. My friend, Mary, has a dog named Max.
D. My neighbor has a cat and her name is Sarah.

**11. When addressing a business audience, it is important to use language that is:**

A. Casual and informal
B. Formal and professional
C. Technical and specialized
D. Conversational and friendly

**12. What does the word "disparate" mean in the passage below?**

Despite the varying backgrounds and experiences of the team members, they were tasked with finding a solution to a complex problem, but the disparate opinions among them made it difficult to reach a consensus on the project plan and move forward with the project in a cohesive manner.

A. Similar
B. Diverse

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C. Equal
D. Consistent

### 13. Select all that apply. Which of the following sentences has incorrect spelling?

A. The dog's tail wagged happily.
B. The students' test scores improved after doing many practice questions.
C. The virus' origin is still under investigation.
D. The dresses's colors were vibrant and eye-catching.

### 14. Which of the following options is a complex sentence?

A. I finished my work early, so I went to the gym to work out.
B. Although I am allergic to cats, I still love them.
C. Even though it was raining, we decided to go for a walk in the park.
D. They went for a walk in the park.

### 15.. Which of the following corrects a spelling error in the sentence?

They're going to the grocery store farther down the road as its produce selection is more affordable.

A. "its" should be "it's"
B. "its" should be "it's" and "produce" should be "produse"
C. "They're" should be "Their"
D. There are no spelling errors in the sentence

### 16. A well-organized paragraph is to contain all the sentences shown below (placed in no particular order). In which order should the sentences be placed in order to create a well-organized paragraph?

(I) Nero was a controversial figure, known for his extravagance, cruelty, and erratic behavior. (II) He was responsible for the deaths of many of his own family members, including his mother, and he was widely believed to have started the Great Fire of Rome in 64 CE in order to clear space for a grand new palace. (III) During the reign of Emperor Nero in the first century CE, the Roman Empire experienced a period of great turmoil and upheaval. (IV) Nero's rule ended in 68 CE, when he was given the death penalty following a revolt by the Roman Senate. (V) The fire destroyed much of the city and left thousands homeless.

A. I, II, III, IV, V
B. IV, I, II, V, III
C. III, II, V, I, IV
D. III, I, II, V, IV

### 17. Which of the following four answer options includes a dependent clause?

A. The sun was shining brightly.
B. She ran a marathon in under three hours.
C. After the storm passed, the sky cleared up.
D. The dog barked loudly at the mailman, so the mailman walked away from it.

**18. Which of the following sentences best demonstrates the use of grammar to enhance clarity in writing?**

A. Because Sarah was late to the party, she hurried up.
B. Sarah hurried up because she was late to the party.
C. Late to the party, Sarah, hurried up.
D. Late, to the party Sarah hurried up.

**19. Which of the following sentences uses incorrect punctuation?**

A. She said I could go to the party if I finished my homework but I didn't finish it.
B. The market is open not only on Saturday but also on Sunday.
C. He is a talented musician, a skilled athlete, and an excellent student.
D. The company is expanding its operations; therefore, it is hiring more employees.

**20. Which of the following sentences uses correct English punctuation?**

A. I went to the store and I bought some milk, bread, and eggs.
B. The dog chased its tail; and it was a funny sight.
C. My favorite subjects are math, science, and English; I enjoy learning new things.
D, She loves to play soccer; but she also enjoys playing basketball.

English Module Answer Key

| ENGLISH QUESTION # | ANSWER(S) |
|---|---|
| 1. | C |
| 2. | D |
| 3. | B & D |
| 4. | B |
| 5. | A |
| 6. | A & B & C |
| 7. | A |
| 8.. | A |
| 9. | B |
| 10. | A |
| 11. | B |
| 12. | B |
| 13. | C & D |
| 14. | C |
| 15. | D |
| 16. | D |
| 17. | C |
| 18. | B |
| 19. | A |
| 20. | C |

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## 1. Which of the following sentences is a thesis statement?

Answer choice C gives us an introduction of the topic that is about follow (topic sentence, but furthermore it also gives us the author's opinion or judgement on the overall topic ( social media's impact as positive interactions and challenges in mental well-being).

## 2. Which of the following sentences is NOT correctly written?

When using "either/or," the verb tense should agree with the subject (the person or object) closer to the verb.

Option A is correct because the subject (brother) closest to the verb is singular and so is the conjugation of the verb to be (is).

Option B is correct because the subject (friends) closest to the verb is plural and so is the conjugation of the verb (were).

Option C is correct because the subject (I) closest to the verb is singular and so is the conjugation of the verb to be (am).

Option D is incorrect because the subject (he) closest to the verb is singular, but the conjugation of the verb (are) is in plural. To be correctly written, the sentence would need to say:

*Either they or he is going to be late for the meeting.*

## 3. Select all that apply. Which of the following sentence uses incorrect punctuation?

The correct way to write this sentence is: She bought the latest eye-catching dress from the store.

We put a hyphen after a noun (e.g. eye) when the noun is being used as an adjective despite not being one. In this case, the word "eye" is used in conjunction with "catching" to describe the word "dress." Neither "eye" nor "catching" are adjectives. They are nouns and verbs being used as adjectives.

If we were to use an actual adjective over a noun that is being used as an adjective, we wouldn't have to use a hyphen. For example, we could say:She bought the latest long dress from the store.

The correct way to write this sentence is: The child wore a bear-themed costume to the party.

We put a hyphen after a noun (e.g. bear) when the noun is being used as an adjective despite not being one. In this case, the word "bear" is used in conjunction with "themed" to describe the word "costume." Neither "bear" nor "themed" are adjectives. They are nouns being used as adjectives.

If we were to use an actual adjective over a noun that is being used as an adjective, we wouldn't have to use a hyphen. For example, we could say:

The child wore bear costume to the party.

Other examples of needing to use hyphens when using nouns or verbs as adjectives are:

He wore a water-resistant watch to the beach.She wore a blue-green dress to the event.The chef prepared a mouth-watering dish for the guests.

## 4. Which of the following sentences uses correct English spelling?

"Loose" (adjective) means something is un-tight or is lost. Meanwhile, "lose" (verb) means to misplace, get rid of, or not win.

In Option B, "loose" is used correctly to describe the screws on the chair being too un-tight.

Option A should use "lose" as the person is misplacing his keys.

Option C should be "lose" as the the person is wanting to get rid of weight before the wedding.

Option D should be "loose" as the cat is misplaced.

## 5. Which of the following sentences best demonstrates the use of transition words to enhance clarity in writing when comparing two different approaches to problem-solving?

A is correct because the use of the transition word "while" effectively highlights the contrast between the two different approaches to problem-solving. This enhances the clarity of the sentence by helping the reader understand the comparison being made.

B is incorrect because the absence of a transition word makes the sentence less clear and harder to understand. The reader may not immediately grasp the comparison being made between the two approaches.

C is incorrect because the sentence structure is incorrect, making it difficult for the reader to understand the intended meaning. The use of "on the other hand" is not appropriately placed within the sentence.

D is incorrect because the use of the transition word "so" implies a cause-and-effect relationship between the two approaches, which is not the intended meaning. The sentence should highlight the contrast between the two approaches, not suggest that one approach is the result of the other.

## 6. Select all that apply. Which of the following could function well as a topic sentence in a well-organized paragraph?

A) The pervasive impact of climate change has been felt across various ecosystems, necessitating immediate global action.This topic sentence introduces a paragraph or section about the widespread effects of climate change and the urgency of addressing it.

B) Advancements in technology over the past decade have revolutionized the way businesses operate and interact with their customers.This topic sentence sets the stage for a discussion on the transformative role of recent technological developments in the business world.

C) Mindfulness practices, rooted in ancient traditions, have gained immense popularity in recent years for their proven benefits in reducing stress and improving overall well-being.This topic sentence would lead into a paragraph or section about the rise in popularity and benefits of mindfulness practices

D) After grabbing my morning coffee, I usually take a short walk in the park before heading to work.This sentence is more of a descriptive or narrative detail rather than a statement that introduces or summarizes the main idea of a paragraph or section that is to follow.

## 7. Which of the following sentences is most appropriate for a professional business proposal?

B is incorrect because the use of informal language, such as "like" and "totally," is not appropriate for a professional business proposal. This type of language may be perceived as unprofessional or even disrespectful.

A is correct because it uses formal language and conveys the idea in a clear, concise manner. This type of language is appropriate for a professional business proposal, as it demonstrates professionalism and respect for the audience.

C is incorrect because it uses informal language, such as "Dude," and an overly casual tone. This type of language is not suitable for a professional business proposal.

D is incorrect because it uses vague and informal language, such as "pretty cool and stuff," which does not effectively convey the importance of the product or its potential impact on the market.

## 8. Which of the following sentences uses proper English?

The correct answer is option "a." "Who" is a subject pronoun used to ask about a person, while "whose" is a possessive pronoun used to indicate ownership. In option "a," "who" is used correctly to ask about the subject of the sentence, and "whose" is not necessary since the sentence does not ask about ownership.

Option "b" is incorrect because "whose" should be followed by a noun to indicate ownership. Option "c" uses "who's" correctly as a contraction of "who is," but "jacket" should follow "whose" to indicate ownership. Option "d" is incorrect because "whose" is used correctly to indicate ownership, but "you" should be replaced with "you're" to make the sentence grammatically correct.

## 9. Which of the following sentences best demonstrates the use of grammar to enhance clarity in writing when describing a person's feelings about an event?

B is correct because it effectively uses a participial phrase ("Excited and nervous") to modify the subject ("her heart") and provide information about the person's feelings. The sentence structure is clear and easy to understand, demonstrating how proper grammar can enhance clarity in writing.

A is incorrect because it places the adjectives "excited" and "nervous" after the verb "raced," making it unclear what the adjectives are modifying. The sentence structure is confusing and does not effectively convey the person's feelings.

C is incorrect because it places the comma after "approached," which makes the adjectives "excited" and "nervous" unclear in their role as modifiers. The sentence structure is less clear than option A.

D is incorrect because the use of two commas around "and nervous" disrupts the flow of the sentence, making it less clear than option A. The sentence structure in option A is more concise and effectively conveys the person's feelings.

## 10. Which of the following sentences DOES NOT use correct punctuation?

The correct answer is option "a." There should be a comma after "eat". Otherwise, you're saying that you should eat grandma as opposed to inviting grandma to eat.

## 11. When addressing a business audience, it is important to use language that is:

Answer choice A: Casual and informalThis answer is incorrect because in a business setting, it's important to maintain a professional demeanor and to present oneself as competent and credible. Using casual or informal language can detract from this and may not be perceived as appropriate or respectful.

Answer choice B: Formal and professionalThis answer is correct. Using formal and professional language in a business setting helps establish credibility, demonstrates respect for the audience, and conveys the message effectively.

Answer choice C: Technical and specializedThis answer is not necessarily incorrect, but it depends on the context and the specific audience. In some cases, a highly technical or specialized audience may expect and appreciate technical language, but in other cases, this type of language may be too complex or off-putting for the audience.

Answer choice D: Conversational and friendlyThis answer is not necessarily incorrect, but it also depends on the context and the specific audience. In some cases, a more conversational and friendly approach may be appropriate, especially if the speaker is trying to establish rapport with the audience. However, in a business setting, it's usually best to err on the side of formality and professionalism.

## 12. What does the word "disparate" mean in the passage below?

The word "disparate" means different, diverse, or unequal.

In the context of the sentence, "disparate opinions" refers to the different or diverse opinions that the team members had, which made it difficult for them to reach a consensus and move forward with the project in a cohesive manner. Option B, "diverse," accurately reflects this meaning and is the correct answer. Option A, "similar," is not accurate because the sentence states that the opinions are different. Option C, "equal," is not accurate because the sentence does not suggest that the opinions are equal. Option D, "consistent," is not accurate because the sentence states that the opinions are not consistent, but rather diverse.

## 13. Select all that apply. Which of the following sentences has incorrect spelling?

The correct way to spell it is: The virus's origin is still under investigation.

Despite "virus" ending in "s", the word is singular and for singular words ending in "s" we add an apostrophe and another "s" at the end.

The correct way to spell it is: The dresses' colors were vibrant and eye-catching.

The word "dresses" is in plural; therefore, we just add an apostrophe at the end but don't need to add another "s".

## 14. Which of the following options is a complex sentence?

A complex sentence is a sentence that contains an independent clause and one or more dependent clauses.

c) joins a dependent clause "Even though it was raining" with an independent clause "we decided to go for a walk in the park"

A compound sentence is a sentence that has at least two independent clauses joined by a comma, semicolon, or conjunction. There are no dependent clauses in a compound sentence.

a) joins two independent clauses together: "I finished my work early" and "I went to the gym to work out"

b) joints two independent clauses together: "Although I am allergic to cats" and "I still love them"

A simple sentence is a sentence that consists of just one independent clause. A simple sentence has no dependent clauses.

d) They went for a walk in the park

## 15. Which of the following corrects a spelling error in the sentence?

There are no spelling errors in the original sentence.

Learn the most common spelling rules of the english language in particular the use of "its" vs. "it's" and "their" vs. "they're

## 16. A well-organized paragraph is to contain all the sentences shown below (placed in no particular order). In which order should the sentences be placed in order to create a well-organized paragraph?

A well-organized passage begins with a clear topic sentence that introduces the main idea of the whole paragraph. The main idea of this whole paragraph is how Emperor Nero behaved as an emperor. Sentences I and III are acceptable options for the topic sentence, although sentence III is a bit better since it follows a chronological order.

The rest of the sentences (I, II, V) are supporting details to the initial topic sentence. Meanwhile, sentence IV is a conclusion to the whole paragraph discussing the end of Nero's life and therefore the end of his time as emperor.

## 17. Which of the following four answer options includes a dependent clause?

Solution: The correct answer is option "c" A dependent clause is a clause that cannot stand alone as a sentence and functions as a noun, adjective, or adverb within a sentence.

In option "c" "After the storm passed" is a dependent clause because it does not express a complete thought on its own and relies on the independent clause "the sky cleared up" to complete the sentence.

Option "a" is a simple sentence that contains only one independent clause, "The sun was shining brightly." Option "b" is also a simple sentence that contains only one independent clause, "She ran a marathon in under three hours."

Option "d" is a compound sentence that contains two independent clauses, "The dog barked loudly at the mailman" and "the mailman walked away from it".

## 18. Which of the following sentences best demonstrates the use of grammar to enhance clarity in writing?

A is incorrect because the sentence structure implies that Sarah hurried up as a result of being late to the party. However, the correct meaning is that Sarah hurried up in order to avoid being late.

B is correct because the sentence uses proper grammar and sentence structure to convey a clear, logical meaning. The cause-and-effect relationship between Sarah's lateness and her decision to hurry up is clearly communicated.

C is incorrect because the placement of commas creates confusion and disrupts the flow of the sentence. The intended meaning is difficult to understand.

D is incorrect because the comma placement and sentence structure are incorrect, making it difficult for the reader to understand the intended meaning. Proper grammar is essential for enhancing clarity in writing.

## 19. Which of the following sentences uses incorrect punctuation?

We need to add a comma before the coordinating conjunction "but" because it joins two independent clauses: She said I could go to the party if I finished my homework and I didn't finish it

Notice that option B) also has the conjunction "but", but it doesnt require a comma. It is correct as it is. Let's dissect that sentence.

"The market is open not only on Saturday" is an independent clause; however, " also on Sunday" which is the clause that follows the conjunction "but" is not an independent clause. It doesn't have a subject + verb to make it an independent clause. For that reason, we do not add a comma before the conjunction "but".

## 20. Which of the following sentences uses correct English punctuation?

The correct answer is option C. A semicolon is used to join two independent clauses that are closely related in meaning and they don't have a conjunction to join them (and, but, or).

In option C, the semicolon is correctly used to join the two independent clauses "My favorite subjects are math, science, and English" and "I enjoy learning new things."

These clauses are closely related and the semicolon indicates a stronger connection between them than a period would.

Option A improperly uses semicolons to separate items in a list (milk, bread, and eggs). You normally use commas to separate items in a list unless the items you are separating already have commas as part of the items e.g. On our trip, we visited Albany, New York; Boston, Massachusetts; and Providence, Rhode Island.

Option B improperly uses a semicolon to join two independent clauses as there is already a conjunction (and) joining the two clauses, so the semicolon is not needed.

Option D improperly uses a semicolon to join two independent clauses as there is already a conjunction (but) joining the two clauses, so the semicolon is not needed.