

# GED FLASHCARDS

## RLA

Reading Comprehension &  
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# GED FLASHCARDS

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# FLASHCARDS

**RLA**

# RLA – Reading C. & Argument Analysis – Questions (75-90s)

Read the passage: “The city council voted to increase funding for public libraries, arguing that access to books and digital resources improves educational outcomes.”

What is the main idea of the passage?

- A) City council debated about taxes.
- B) Libraries are expensive to maintain.
- C) Public libraries received more funding to support education.
- D) Digital resources are replacing books.

A study shows: “Students who read 20 minutes daily score 30% higher on reading tests than those who do not.”

What inference can be drawn?

Read the sentence: “The author criticizes fast-food companies for marketing unhealthy products to children.”

What is the author’s purpose?

- A) To entertain with a funny story
- B) To persuade readers to change behavior
- C) To provide neutral information
- D) To summarize medical research

Read the excerpt: “The report, funded by the oil industry, claims renewable energy is too costly and unreliable.”

What bias may be present?

# **RLA – Reading C. & Argument Analysis – Correct Answers**

**Correct: C) Public libraries received more funding to support education.**

**Students who consistently read for 20 minutes daily are more likely to achieve higher reading test scores.**

**Correct: B) To persuade readers to change behavior.**

**The report may be biased against renewable energy because it is funded by the oil industry, which has an economic interest.**

# RLA – Reading C. & Argument Analysis – Questions (75-90)

Examine the chart: 90% of adults who exercise regularly report higher energy levels; 40% of those who don't exercise report higher energy levels.

Which claim is most strongly supported?

- A) Exercise causes weight loss.
- B) Exercise improves energy levels.
- C) People without exercise are unhealthy.
- D) Energy levels depend only on diet.

Passage: “The article presents both the benefits and drawbacks of online education before concluding that a hybrid model works best.”

What is the author's claim?

- A) Online education is the only effective method.
- B) Traditional schools are superior to online education.
- C) A combination of online and in-person learning is most effective.
- D) Students should avoid hybrid models.

Read the excerpt: “According to a government survey, 70% of households recycle regularly, yet landfill waste has not significantly decreased.”

What inference can be made?

Passage: “The author uses statistics from independent research to support the argument that small businesses are essential to local economies.”

What type of reasoning is this?

- A) Anecdotal reasoning
- B) Claim without support
- C) Evidence-based reasoning
- D) Circular reasoning

# RLA – Reading C. & Argument Analysis – Correct Answers

**Correct: B) Exercise improves energy levels.**

**Correct: C) A combination of online and in-person learning is most effective.**

**Although many households recycle, other factors (such as increased consumption) may keep landfill waste levels high.**

**Correct: C) Evidence-based reasoning.**

# RLA – Reading C. & Argument Analysis – Questions (75-90s)

**Excerpt: “The editorial praises the mayor’s new policy, describing it as the most visionary reform in decades.”**

**What is the tone of the excerpt?**

- A) Neutral**
- B) Critical**
- C) Supportive**
- D) Informative**

**Passage: “The author cites a study but fails to mention that it was conducted with only 12 participants.”**

**Why is this a weakness in the argument?**

**Passage: “While smartphones connect people across the globe, they also contribute to reduced face-to-face interaction and rising anxiety levels among teens.”**

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

- A) Smartphones are only beneficial to society.**
- B) Smartphones have both positive and negative effects.**
- C) Smartphones cause anxiety in all users.**
- D) Teens should not use smartphones.**

**A newspaper headline states: “New Study Finds Link Between Sleep Deprivation and Lower Academic Performance.”**

**What inference can reasonably be drawn?**

# **RLA – Reading C. & Argument Analysis – Correct Answers**

**Correct: C) Supportive.**

**The small sample size makes the evidence less reliable and limits its ability to support broad conclusions.**

**Correct: B) Smartphones have both positive and negative effects.**

**Students who consistently lack sleep may perform worse academically compared to those who get sufficient rest.**

# RLA – Reading C. & Argument Analysis – Questions (75-90s)

Excerpt: “The speaker describes renewable energy as ‘the only path forward for a sustainable future.’”

What is the author’s purpose in this statement?

- A) To entertain the audience
- B) To persuade readers to support renewable energy
- C) To provide neutral information about energy
- D) To criticize fossil fuel companies

Look at the chart:

- 2010: 25% of adults smoked
- 2020: 15% of adults smoked

What claim is best supported by this data?

- A) Smoking has increased in popularity.
- B) Smoking has declined over the last decade.
- C) Smoking rates remained unchanged.
- D) More teens than adults smoke today.

Excerpt: “Critics argue that the survey is unreliable because it was conducted by a company with a financial interest in the outcome.”

What does this reveal about the source?

Passage: “Despite the popularity of electric cars, critics note that the production of batteries still relies heavily on mining, which harms the environment.”

What is the author’s main claim?

- A) Electric cars solve all environmental problems.
- B) Battery production has environmental drawbacks.
- C) Mining has no effect on the environment.
- D) Fossil fuels are better than electric cars.

# **RLA – Reading C. & Argument Analysis – Correct Answers**

**Correct: B) To persuade readers to support renewable energy.**

**Correct: B) Smoking has declined over the last decade.**

**The source may be biased, as its financial interests could influence the survey results and reduce credibility.**

**Correct: B) Battery production has environmental drawbacks.**

# RLA – Reading C. & Argument Analysis – Questions (75-90s)

A report states: “Students who participate in extracurricular activities show higher levels of engagement and better time management.”

What inference can reasonably be drawn?

Excerpt: “The author argues that stricter gun control laws will reduce violence, citing examples from countries with lower crime rates.”

Which type of reasoning is used?

- A) Anecdotal reasoning
- B) Comparative evidence
- C) Unsupported opinion
- D) Circular reasoning

Look at the graph: High school graduation rates increased from 75% in 2000 to 88% in 2020. What is the strongest claim supported by this data?

- A) Fewer students finish high school now than in 2000.
- B) Graduation rates have risen steadily over time.
- C) College enrollment has also increased.
- D) School funding has doubled since 2000.

Passage: “The article praises the city’s recycling program, calling it a model for the entire nation.”

What is the tone?

- A) Neutral
- B) Critical
- C) Admiring
- D) Cautious

# **RLA – Reading C. & Argument Analysis – Correct Answers**

**Participation in extracurriculars is linked to improved engagement and organizational skills.**

**Correct: B) Comparative evidence.**

**Correct: B) Graduation rates have risen steadily over time.**

**Correct: C) Admiring.**

# RLA – Reading C. & Argument Analysis – Questions (75-90s)

Excerpt: “The politician insists that climate change is not real, despite overwhelming scientific consensus.”  
What flaw in reasoning is most evident?

Passage: “Research funded by a soda company concludes that sugary drinks do not contribute to obesity.”  
What factor undermines the credibility of this research?

A passage argues: “Raising the minimum wage will reduce poverty.”  
What type of statement is this?

- A) Fact
- B) Opinion
- C) Claim
- D) Statistic

Excerpt: “Although the study links video games to aggression, it fails to control for other variables such as family environment.”  
What is the weakness of the study?

# **RLA – Reading C. & Argument Analysis – Correct Answers**

**The claim ignores credible evidence and relies on denial rather than scientific data.**

**The funding source creates a conflict of interest and potential bias.**

**Correct: C) Claim.**

**The lack of controlled variables makes it hard to establish a direct cause-and-effect relationship.**

# RLA – Reading C. & Argument Analysis – Questions (75-90s)

Passage: “The editorial highlights rising healthcare costs and concludes with a call for government action to make care more affordable.”

What is the author’s purpose?

- A) To entertain readers
- B) To persuade readers to support policy change
- C) To provide a neutral report
- D) To summarize medical procedures

# **RLA – Reading C. & Argument Analysis– Correct Answers**

**Correct: B) To persuade readers to support policy change.**

# RLA – Grammar & Usage – Questions (60-75s)

Choose the sentence with correct subject-verb agreement:

- A) The list of items are on the table.
- B) The list of items is on the table.
- C) The lists of item is on the table.
- D) The list of item are on the table.

- Identify the correct use of a pronoun:
- A) Each student must bring their pencil.
  - B) Each student must bring his or her pencil.
  - C) Each student must bring they pencil.
  - D) Each student must bring them pencil.

Choose the correctly written sentence in past tense:

- A) She run to the store yesterday.
- B) She ran to the store yesterday.
- C) She runs to the store yesterday.
- D) She was run to the store yesterday.

Which sentence uses punctuation correctly?

- A) I bought apples, oranges, and bananas.
- B) I bought, apples, oranges and bananas.
- C) I bought apples oranges, and bananas.
- D) I bought apples oranges and, bananas.

# RLA – Grammar & Usage – Correct Answers

**Correct: B) The list of items is on the table.**

**Correct: B) Each student must bring his or her pencil.**

**(Note: modern usage sometimes accepts “their,” but formal GED prefers singular agreement.)**

**Correct: B) She ran to the store yesterday.**

**Correct: A) I bought apples, oranges, and bananas.**

# RLA – Grammar & Usage – Questions (60-75s)

Identify the sentence fragment:

- A) She enjoys painting on weekends.
- B) Running through the park late at night.
- C) They traveled across the country last summer.
- D) We studied for the exam all afternoon.

Choose the sentence written in a formal style:

- A) The teacher was like, “You gotta finish this today.”
- B) The teacher told us that the assignment must be completed today.
- C) The teacher was all, “Finish it right now.”
- D) The teacher said we gotta wrap it up today.

Select the sentence with correct verb tense consistency:

- A) She finished her homework and goes to the park.
- B) She finishes her homework and went to the park.
- C) She finished her homework and went to the park.
- D) She was finishing her homework and goes to the park.

Which sentence uses capitalization correctly?

- A) My family visited new york city last Summer.
- B) My family visited New York City last summer.
- C) My family visited New york city last Summer.
- D) My family visited new York City last Summer.

# RLA – Grammar & Usage – Correct Answers

**Correct: B) Running through the park late at night.  
(It lacks a subject and a complete verb).**

**Correct: B) The teacher told us that the assignment must be completed today.**

**Correct: C) She finished her homework and went to the park.**

**Correct: B) My family visited New York City last summer.**

# RLA – Grammar & Usage – Questions (60-75s)

Identify the run-on sentence:

- A) I love music I listen to it every day.
- B) I love music, and I listen to it every day.
- C) I love music. I listen to it every day.
- D) I love music; I listen to it every day.

Choose the sentence with correct pronoun reference:

- A) When Sarah spoke to Anna, she said she was tired.
- B) When Sarah spoke to Anna, Anna said she was tired.
- C) Sarah spoke to Anna, and it said she was tired.
- D) Sarah spoke to Anna, but tired she was.

Choose the sentence with correct subject-verb agreement:

- A) The players on the team practices every day.
- B) The players on the team practice every day.
- C) The player on the team practice every day.
- D) The players on the team practicing every day.

Which sentence is written in the correct future tense?

- A) She will study for the exam tomorrow.
- B) She studies for the exam tomorrow.
- C) She studied for the exam tomorrow.
- D) She is study for the exam tomorrow.

# RLA – Grammar & Usage – Correct Answers

**Correct: A) I love music I listen to it every day.**

**Correct: B) When Sarah spoke to Anna, Anna said she was tired. (Avoids ambiguity by making the pronoun reference clear).**

**Correct: B) The players on the team practice every day.**

**Correct: A) She will study for the exam tomorrow.**

# RLA – Grammar & Usage – Questions (60-75s)

Select the sentence with correct punctuation for direct speech:

- A) “I can’t wait to see the movie” said Maria.
- B) “I can’t wait to see the movie,” said Maria.
- C) I can’t wait to see the movie, said Maria.
- D) “I can’t wait to see the movie,”, said Maria.

Identify the sentence fragment:

- A) Because the weather was cold.
- B) We stayed inside because the weather was cold.
- C) The weather was cold, so we stayed inside.
- D) It snowed heavily during the night.

Which sentence maintains a proper formal tone?

- A) The results of the study were pretty good.
- B) The results of the study were satisfactory.
- C) The results of the study were kinda okay.
- D) The results of the study were awesome.

# RLA – Grammar & Usage – Correct Answers

Correct: B) “I can’t wait to see the movie,” said Maria.

Correct: A) Because the weather was cold.  
(It lacks a complete thought).

Correct: B) The results of the study were satisfactory.

# RLA – Writing & Rhetoric – Questions (90-120s)

Which of the following is the strongest thesis statement for an essay about renewable energy?

- A) Renewable energy is interesting to learn about.
- B) Renewable energy is becoming more common.
- C) Renewable energy is the most effective solution to reducing pollution and slowing climate change.
- D) Renewable energy is used in some countries.

A student writes: “Many people use social media daily. It can connect people, but it also causes stress. Therefore, it is important to balance online time with other activities.”

What does this paragraph have?

- A) A thesis without evidence
- B) A clear topic sentence and supporting details
- C) Only examples, no thesis
- D) Evidence but no conclusion

Which sentence provides the best transition between two paragraphs about exercise and mental health?

- A) Additionally, physical activity benefits not only the body but also the mind.
- B) Exercise is fun.
- C) Exercise is important.
- D) Some people exercise, and others do not.

Read the excerpt: “According to the CDC, students who get 8 hours of sleep are more likely to perform better academically.”

What is the student doing here?

- A) Giving an opinion
- B) Adding irrelevant detail
- C) Integrating evidence to support a claim
- D) Making a transition

# RLA – Writing & Rhetoric – Correct Answers

**Correct: C) Renewable energy is the most effective solution to reducing pollution and slowing climate change. (Strong, arguable, and focused thesis).**

**Correct: B) A clear topic sentence and supporting details.**

**Correct: A) Additionally, physical activity benefits not only the body but also the mind.**

**Correct: C) Integrating evidence to support a claim.**

# RLA – Writing & Rhetoric – Questions (90-120s)

Which revision best improves clarity and style?

Original: “The reason the experiment failed is because the equipment was not working properly.”

- A) The experiment failed because the equipment was not working properly.
- B) The experiment failed because of the equipment not working properly.
- C) The reason the experiment failed is because of faulty equipment.
- D) The experiment, it failed, since the equipment didn’t work.

Which option is the most effective thesis statement for an essay about technology in education?

- A) Technology can be good or bad.
- B) Technology has changed schools in many ways.
- C) Technology, when integrated thoughtfully, enhances student learning and prepares them for modern careers.
- D) Technology is used in schools today.

A student writes: “Fast food is unhealthy. People should not eat it every day. Therefore, schools should provide healthier meal options.”

What is the structure of this paragraph?

- A) Conclusion first, evidence last
- B) Topic sentence, supporting details, conclusion
- C) Only details, no topic sentence
- D) Transition only

Which transition best connects two paragraphs about the negative health effects of smoking and government policies to reduce it?

- A) In contrast, smoking is very dangerous.
- B) Another example is about smoking.
- C) Consequently, many governments have passed laws to discourage smoking.
- D) Smoking is bad.

# **RLA – Writing & Rhetoric – Correct Answers**

**Correct: A) The experiment failed because the equipment was not working properly.  
(Removes redundancy and keeps formal style).**

**Correct: C) Technology, when integrated thoughtfully, enhances student learning and prepares them for modern careers.**

**Correct: B) Topic sentence, supporting details, conclusion.**

**Correct: C) Consequently, many governments have passed laws to discourage smoking.**

# RLA – Writing & Rhetoric – Questions (90-120s)

Which sentence best demonstrates integrating evidence smoothly?

- A) Obesity is bad. Studies are out there about it.
- B) A recent Harvard study found that children who eat breakfast daily perform better in school, supporting the argument that nutrition is linked to academic success.
- C) Eating breakfast is great.
- D) Studies say many things.

Which revision improves clarity and concision?

Original: “The main point that I want to say is that recycling is very important for the environment.”

- A) Recycling is important for the environment.
- B) The point I want to say is recycling is important.
- C) Recycling is the thing important for the environment.
- D) Recycling is very, very important.

# **RLA – Writing & Rhetoric – Correct Answers**

**Correct: B) A recent Harvard study found that children who eat breakfast daily perform better in school, supporting the argument that nutrition is linked to academic success.**

**Correct: A) Recycling is important for the environment.**

# FLASHCARDS

**Math**

# **MATH – Basic Math & Number Sense – Questions (60–90s)**

**Simplify:  $18/24$ .**

**Convert 0.375 to a fraction in simplest form.**

**What is 25% of 240?**

**A recipe calls for 2 cups of sugar for 5 servings. How many cups are needed for 15 servings?**

# MATH – Basic Math & Number Sense – Correct Answers

Correct:  $18/24 = 3/4$

Correct:  $0.375 = 3/8$ .

Correct:  $25\% \times 240 = 60$ .

Correct: Proportion  $2/5 = x/15 \rightarrow$   
 $x = 6$ .

# MATH – Basic Math & Number Sense – Questions (60–90s)

Simplify:  $5^3$ .

Find the square root:  $\sqrt{196}$ .

Evaluate:  $12 - 3 \times 2 + 4$ .

Estimate the product:  $298 \times 51$ .

A) 15,000

B) 20,000

C) 25,000

D) 30,000

# MATH – Basic Math & Number Sense – Correct Answers

Correct:  $5^3 = 125$ .

Correct:  $\sqrt{196} = 14$ .

Correct: Apply order of operations  $\rightarrow 12 - 6 + 4 = 10$ .

Correct: Round to  
 $300 \times 50 = 15,000$ . Answer: A)  
15,000.

# **MATH – Basic Math & Number Sense – Questions (60–90s)**

**Simplify the fraction:  $42/56$ .**

**Write  $7/20$  as a decimal.**

**A store has a 30% discount on a \$120 jacket. What is the sale price?**

**The ratio of boys to girls in a class is 3:5. If there are 24 girls, how many boys are there?**

# MATH – Basic Math & Number Sense – Correct Answers

Correct:  $42/56 = 3/4$ .

Correct:  $7/20=0.35$ .

Correct:  $120 \times 0.30 = 36$ .  
Sale price =  $120 - 36 = 84$ .

Correct:  $3/5 = x/24 \rightarrow x = 14.4$ . Not possible, must be whole  $\rightarrow$  If 24 girls, total ratio parts = 8  $\rightarrow$  1 part = 3  $\rightarrow$  boys = 9.  
Correct: 9 boys.

# MATH – Basic Math & Number Sense – Questions (60–90s)

Simplify:  $4^2 \times 4^3$ .

Evaluate:  $\sqrt{81} + 2^4$ .

Use order of operations:  
 $(6+4) \times (8-3)$ .

Estimate:  $4.8 \times 19.6$ .

- A) 60
- B) 80
- C) 100
- D) 120

# MATH – Basic Math & Number Sense – Correct Answers

Correct: Add exponents →  
 $4^{\{2+3\}} = 4^5 = 1024.$

Correct:  $\sqrt{81} = 9$ ,  $2^4 = 16.$   
Total =  $9+16=25.$

Correct:  $(10) \times (5) = 50.$

Correct: Round →  $5 \times 20 = 100.$   
Answer: C) 100.

# MATH – Geometry & Measurement – Questions (75–90s)

What is the equation of a circle with center  $(3, -2)$  and radius 5?

If the equation of a circle is  $(x+4)^2+(y-1)^2=36$ , what are the center and radius?

The diameter of a circle is 10. What is the area of the circle?

A circle has circumference  $C=16\pi$ . What is the radius?

# MATH – Geometry & Measurement – Correct Answers

$$(x-3)^2+(y+2)^2=25.$$

Center:  $(-4,1)$ , Radius:  
 $\sqrt{36} = 6.$

$$\begin{aligned}\text{Radius} &= 10/2=5. \\ \text{Area} &= \pi r^2 = 25\pi.\end{aligned}$$

$$C=2\pi r \Rightarrow 16\pi=2\pi r \Rightarrow r=8.$$

# MATH – Geometry & Measurement – Questions (75–90s)

In a right triangle, legs are 9 and 12. What is the hypotenuse?

In a  $30^\circ-60^\circ-90^\circ$  triangle, the shorter leg is 5. What is the hypotenuse?

In a right triangle, opposite = 8, hypotenuse = 10. Find  $\sin\theta$ .

In a right triangle, adjacent = 7, hypotenuse = 25. Find  $\cos\theta$ .

# MATH – Geometry & Measurement – Correct Answers

$$c^2 = 9^2 + 12^2 = 81 + 144 = 225 \Rightarrow c = 15.$$

Answer: 15

$$\text{Hypotenuse} = \text{shorter leg} \times 2 = 5 \times 2 = 10.$$

Answer: 10

$$\sin \theta = \text{opposite/hypotenuse} = 8/10 = 0.8.$$

$$\cos \theta = 7/25 = 0.28.$$

# **MATH – Geometry & Measurement – Questions (75–90s)**

**Find the area of a triangle with base 12 and height 8.**

**What is the area of a trapezoid with bases 10 and 14, and height 6?**

**Find the area of a circle with radius 9.**

**A rectangular box has length 5, width 4, and height 3. What is its volume?**

# MATH – Geometry & Measurement – Correct Answers

$$\text{Area} = \frac{1}{2} \cdot \text{base} \cdot \text{height} = \frac{1}{2} \cdot 12 \cdot 8 = 48.$$

Answer: 48

$$\begin{aligned} \text{Area} &= \\ \frac{1}{2}(b_1 + b_2)h &= \frac{1}{2}(10 + 14) \\ & (6) = 72. \end{aligned}$$

Answer: 72

$$\text{Area} = \pi r^2 = 81\pi.$$

Answer:  $81\pi$

$$\text{Volume} = l \cdot w \cdot h = 5 \cdot 4 \cdot 3 = 60.$$

Answer: 60

# MATH – Basic Algebra – Questions (≈90s)

Solve for x:

$$3x - 7 = 11$$

Solve for x:

$$5x + 2 = 3x + 14$$

If  $7x + 4 = 25$ , what is the value of x?

$$2(x - 3) = 4x + 8$$

# MATH – Basic Algebra – Correct Answers

$$3x=18 \Rightarrow x=6$$

$$5x-3x=14-2 \Rightarrow 2x=12 \Rightarrow x=6$$

$$7x=21 \Rightarrow x=3$$

$$2x-6=4x+8 \Rightarrow -6-8=4x-2x \Rightarrow$$
$$-14=2x \Rightarrow x=-7$$

# MATH – Basic Algebra – Questions (≈90s)

Solve the inequality:

$$4x - 5 > 3x + 2$$

Solve for x:

$$x/3 + 5 = 9$$

If  $2x + 7 = 19$ , what is the solution for x?

Solve for x:

$$10 - 2x = 4x - 8$$

# MATH – Basic Algebra – Correct Answers

$$4x - 3x > 2 + 5 \Rightarrow x > 7$$

$$x/3 = 4 \Rightarrow x = 12$$

$$2x = 12 \Rightarrow x = 6$$

$$10 + 8 = 4x + 2x \Rightarrow 18 = 6x \Rightarrow x = 3$$

# MATH – Basic Algebra – Questions (≈90s)

Solve the system by  
substitution:

$$y=2x+3$$

$$x+y=9$$

Solve the system by  
elimination:

$$3x+2y=16$$

$$2x-2y=4$$

Solve the system:

$$y=-x+5$$

$$y=2x-1$$

The system of equations is:

$$x+y=10$$

$$x-y=2$$

Find the solution.

# MATH – Basic Algebra – Correct Answers

Substitute  $y=2x+3$

$$x+(2x+3)=9 \Rightarrow$$

$$3x+3=9 \Rightarrow 3x=6 \Rightarrow x=2.$$

$$\text{Then } y=2(2)+3=7.$$

Solution: (2, 7)

Add equations:

$$3x+2y+2x-2y=16+4 \Rightarrow 5x=20$$

$$\Rightarrow x=4.$$

$$\text{Plug into 2nd: } 2(4)-2y=4 \Rightarrow$$

$$8-2y=4 \Rightarrow -2y=-4 \Rightarrow y=2.$$

Solution: (4, 2)

$$\text{Set equal: } -x+5=2x-1 \Rightarrow$$

$$3x=6 \Rightarrow x=2.$$

$$\text{Then } y=2(2)-1=3.$$

Solution: (2, 3)

$$\text{Add: } (x+y)+(x-y)=10+2 \Rightarrow$$

$$2x=12 \Rightarrow x=6.$$

$$\text{Then } 6+y=10 \Rightarrow y=4.$$

Solution: (6, 4)

# MATH – Basic Algebra – Questions (≈90s)

Solve for x:

$$|x-3| = 7$$

Solve the inequality:

$$|2x+1| < 5$$

Solve:

$$|x+4| \geq 6$$

Solve the compound  
inequality:

$$-2 < 3x - 5 \leq 7$$

# MATH – Basic Algebra – Correct Answers

Two cases:

$$x-3=7 \Rightarrow x=10$$

$$x-3=-7 \Rightarrow x=-4$$

Solution:  $x=10$  or  $x=-4$

$$-5 < 2x+1 < 5$$

$$-6 < 2x < 4 \Rightarrow -3 < x < 2$$

Solution:  $-3 < x < 2$

Two cases:

$$x+4 \geq 6 \Rightarrow x \geq 2$$

$$x+4 \leq -6 \Rightarrow x \leq -10$$

Solution:  $x \geq 2$  or  $x \leq -10$

$$\text{Add 5: } 3 < 3x \leq 12$$

$$\text{Divide by 3: } 1 < x \leq 4$$

Solution:  $1 < x \leq 4$

# MATH – Basic Algebra – Questions (≈90s)

Maria buys 3 notebooks and 2 pens for \$14. A notebook costs \$3. Let  $p$  = price of one pen. Which equation represents the situation?

A taxi charges a \$4 flat fee plus \$2 per mile. If the total cost is \$18, let  $m$  = miles driven. Which equation models the cost?

A movie theater sells tickets: adult tickets are \$10 each, student tickets are \$6 each. If 5 adult tickets and  $s$  student tickets total \$68, what equation represents the situation?

A car rental costs \$40 per day plus \$0.20 per mile. If the total cost is \$94 after 100 miles, let  $d$  = days rented. Which equation represents the cost?

# MATH – Basic Algebra – Correct Answers

$$3(3)+2p=14 \Rightarrow 9+2p=14$$

$$4+2m=18$$

$$10(5)+6s=68 \Rightarrow 50+6s=68$$

$$40d+0.20(100)=94 \Rightarrow$$
$$40d+20=94$$

# MATH – Basic Algebra – Questions (≈90s)

Solve the inequality:

$$5 - 3x \leq 11$$

Solve for x:

$$(2x - 4) / 5 = 6$$

# MATH – Basic Algebra – Correct Answers

$-3x \leq 6 \Rightarrow x \geq -2$  (inequality  
flips when dividing by  
negative).

$$2x - 4 = 30 \Rightarrow 2x = 34 \Rightarrow x = 17$$

# MATH – Graphs & Functions – Questions (75–90s)

A line passes through the points (2, 5) and (6, 13). What is its slope?

Table:

x | 1 | 2 | 3 | 4

y | 3 | 6 | 9 | 12

What is the rule for this function?

Which graph represents a positive slope?

- A) Line slanting upward from left to right
- B) Line slanting downward from left to right
- C) A horizontal line
- D) A vertical line

The equation of a line is  $y = -\frac{1}{2}x + 4$ . What is the y-intercept?

# MATH – Graphs & Functions – Correct Answers

Correct:  $m = (13 - 5) / (6 - 2) = 8 / 4 = 2$ .

Correct:  $y = 3x$ .

Correct: A) Line slanting upward  
from left to right.

Correct:  $y = 4$ .

# MATH – Graphs & Functions – Questions (75–90s)

Input-output table:

x | 0 | 1 | 2 | 3

y | 2 | 4 | 6 | 8

What is the slope of the function?

Which of the following equations matches a line with slope 3 and y-intercept -2?

A)  $y = -3x + 2$

B)  $y = 3x - 2$

C)  $y = 2x + 3$

D)  $y = -2x - 3$

A graph shows a horizontal line at  $y = 7$ . What is the slope?

If  $f(x) = 2x + 1$ , what is  $f(5)$ ?

# MATH – Graphs & Functions – Correct Answers

Correct: Each increase of 1 in  $x$  increases  $y$  by 2  $\rightarrow$  slope = 2.

Correct: B)  $y=3x-2$ .

Correct: Slope = 0.

Correct:  $f(5)=2(5)+1=11$ .

# **MATH – Graphs & Functions – Questions (75–90s)**

The points (1, 2), (2, 4), (3, 6) lie on a line. What is the equation of the line?

A scatterplot shows that as hours studied increase, test scores also increase. What type of correlation is this?

- A) Negative correlation
- B) Positive correlation
- C) No correlation
- D) Perfect negative correlation

# MATH – Graphs & Functions – Correct Answers

Correct: Slope = 2, y-intercept =  
0  $\rightarrow y=2x$ .

Correct: B) Positive correlation.

# FLASHCARDS

**Science**

# Science – Life Science – Questions (75-90s)

What is the basic unit of life?

- A) Atom
- B) Cell
- C) Tissue
- D) Organ

Which organelle is known as the “powerhouse of the cell”?

DNA is located mainly in which part of the cell?

- In genetics, what does a dominant allele do?
- A) Hides the effect of a recessive allele
  - B) Is always harmful
  - C) Never shows in offspring
  - D) Only appears in mutations

# Science – Life Science – Correct Answers

**Correct: B) Cell.**

**Correct: Mitochondria.**

**Correct: The nucleus.**

**Correct: A) Hides the effect  
of a recessive allele.**

# Science – Life Science – Questions (75-90s)

If a flower's genotype is Aa, what is this called?

- A) Homozygous dominant
- B) Homozygous recessive
- C) Heterozygous
- D) Mutation

What process do plants use to make food using sunlight?

What type of relationship exists when one organism benefits and the other is harmed (like a tapeworm in a human)?

- A) Mutualism
- B) Commensalism
- C) Parasitism
- D) Competition

What is the main source of energy for nearly all ecosystems?

# Science – Life Science – Correct Answers

**Correct: C) Heterozygous.**

**Correct: Photosynthesis.**

**Correct: C) Parasitism.**

**Correct: The Sun.**

# Science – Life Science – Questions (75-90s)

Which process explains how species change over long periods of time through natural selection?

Which organ system is responsible for transporting oxygen and nutrients throughout the body?

- A) Digestive system
- B) Circulatory system
- C) Nervous system
- D) Respiratory system

What molecule carries genetic information in living organisms?

Which of the following is an example of homeostasis?

- A) Sweating to cool down the body
- B) Eating a large meal
- C) Running a marathon
- D) Gaining weight

# **Science – Life Science – Correct Answers**

**Correct: Evolution.**

**Correct: B) Circulatory  
system.**

**Correct: DNA  
(deoxyribonucleic acid).**

**Correct: A) Sweating to  
cool down the body.**

# Science – Life Science – Questions (75-90s)

In a food chain, which organisms are always at the base?

- A) Carnivores
- B) Herbivores
- C) Producers
- D) Decomposers

What type of cell division produces sex cells (gametes)?

What is the main function of white blood cells?

If a parent has genotype Bb and another parent has bb, what percentage of offspring will show the dominant trait?

- A) 0%
- B) 25%
- C) 50%
- D) 100%

# **Science – Life Science – Correct Answers**

**Correct: C) Producers.**

**Correct: Meiosis.**

**Correct: To fight infections  
and protect the body from  
disease.**

**Correct: C) 50%.**

# Science – Life Science – Questions (75-90s)

Which human body system controls voluntary and involuntary actions using electrical signals?

- A) Nervous system
- B) Muscular system
- C) Circulatory system
- D) Digestive system

Which part of a plant carries water from the roots to the leaves?

- A) Phloem
- B) Xylem
- C) Stomata
- D) Chloroplast

# **Science – Life Science – Correct Answers**

**Correct: A) Nervous  
system.**

**Correct: B) Xylem.**

# Science – Physical Science – Questions (75-90s)

What is the unit of force in the metric system?

- A) Watt
- B) Newton
- C) Joule
- D) Volt

Which of Newton's laws states that an object in motion stays in motion unless acted upon by an outside force?

If a car travels 150 km in 3 hours, what is its average speed?

Energy stored in a stretched rubber band is an example of:

- A) Kinetic energy
- B) Potential energy
- C) Nuclear energy
- D) Thermal energy

# Science – Physical Science – Correct Answers

**Correct: B) Newton.**

**Correct: Newton's First Law  
(Law of Inertia).**

**Correct: Speed= $150/3=50$   
km/h.**

**Correct: B) Potential  
energy.**

# Science – Physical Science – Questions (75-90s)

Which form of energy is associated with moving objects?

What is the chemical formula for water?

When ice melts into liquid water, this change is called:

- A) Chemical change
- B) Physical change
- C) Nuclear reaction
- D) Combustion

Which subatomic particle has a negative charge?

# Science – Physical Science – Correct Answers

**Correct: Kinetic energy.**

**Correct: H<sub>2</sub>O.**

**Correct: B) Physical change.**

**Correct: Electron.**

# Science – Physical Science – Questions (75-90s)

What type of charge do protons carry?

What type of energy transformation occurs when a toaster is used?

- A) Chemical → Electrical
- B) Electrical → Thermal
- C) Thermal → Chemical
- D) Nuclear → Electrical

What is the smallest unit of an element that still retains its properties?

Which law states that energy cannot be created or destroyed, only transformed?

# Science – Physical Science – Correct Answers

**Correct: Positive charge.**

**Correct: B) Electrical →  
Thermal.**

**Correct: An atom.**

**Correct: Law of  
Conservation of Energy.**

# Science – Physical Science – Questions (75-90s)

Table salt (NaCl) is formed from sodium and chlorine. What type of bond holds these atoms together?

- A) Covalent bond
- B) Ionic bond
- C) Metallic bond
- D) Hydrogen bond

When a substance changes from solid to gas without passing through liquid, the process is called:

What is the formula for calculating electrical power?

- A)  $P=V \times I$
- B)  $P=m \times a$
- C)  $P=W/t$
- D)  $P=F \times d$

Which type of circuit allows electricity to flow through more than one path?

- A) Series circuit
- B) Parallel circuit
- C) Closed circuit
- D) Open circuit

# Science – Physical Science – Correct Answers

**Correct: B) Ionic bond.**

**Correct: Sublimation.**

**Correct: A)  $P=V \times I$  (Power = Voltage  $\times$  Current).**

**Correct: B) Parallel circuit.**

# Science – Physical Science – Questions (75-90s)

If a light bulb uses 60 watts of power for 2 hours, how much energy is consumed?

- A) 30 Wh
- B) 60 Wh
- C) 120 Wh
- D)  $120 \text{ Wh} \times 2 = 120 \text{ Wh}$

Which particles are found in the nucleus of an atom?

- A) Protons and electrons
- B) Neutrons and electrons
- C) Protons and neutrons
- D) Electrons only

# Science – Physical Science – Correct Answers

Correct: 120 Wh ( $60\text{ W} \times 2\text{ h}$ ).

Correct: C) Protons and neutrons.

# Science – Earth & Space Science – Questions (75-90s)

What causes Earth's seasons?

- A) Distance from the Sun
- B) Earth's tilt on its axis
- C) Shape of Earth's orbit
- D) Sunspot activity

Which gas is most responsible for trapping heat in Earth's atmosphere?

- A) Oxygen
- B) Nitrogen
- C) Carbon dioxide
- D) Argon

What is the primary source of Earth's freshwater?

- A) Oceans
- B) Glaciers and ice caps
- C) Groundwater
- D) Rivers and lakes

What type of rock is formed from cooled lava or magma?

- A) Sedimentary
- B) Igneous
- C) Metamorphic
- D) Fossil

# Science – Earth & Space Science – Correct Answers

**Correct: B) Earth's tilt on its axis.**

**Correct: C) Carbon dioxide.**

**Correct: B) Glaciers and ice caps.**

**Correct: B) Igneous.**

# Science – Earth & Space Science – Questions (75-90s)

Which layer of Earth is liquid and responsible for generating the magnetic field?

- A) Crust
- B) Mantle
- C) Outer core
- D) Inner core

What is the largest planet in our solar system?

What causes ocean tides on Earth?

- A) Sun's radiation
- B) Earth's rotation speed
- C) Moon's gravitational pull
- D) Earth's orbit

Which natural cycle describes how water moves through evaporation, condensation, and precipitation?

# **Science – Earth & Space Science – Correct Answers**

**Correct: C) Outer core.**

**Correct: Jupiter.**

**Correct: C) Moon's  
gravitational pull.**

**Correct: The water cycle.**

# Science – Earth & Space Science – Questions (75-90s)

Which galaxy is Earth located in?

# **Science – Earth & Space Science – Correct Answers**

**Correct: The Milky Way  
Galaxy.**

# FLASHCARDS

**Social  
Studies**

# **Social Studies – Civics & Government – Questions (75-90s)**

**What is the supreme law of the United States?**

**Which branch of government makes the laws?**

- A) Legislative**
- B) Executive**
- C) Judicial**
- D) State governments**

**Who is the Commander-in-Chief of the U.S. military?**

**What do the first ten amendments to the Constitution guarantee?**

# **Social Studies – Civics & Government – Correct Answers**

**Correct: The U.S.  
Constitution.**

**Correct: A) Legislative.**

**Correct: The President.**

**Correct: The Bill of Rights  
– basic individual  
freedoms.**

# **Social Studies – Civics & Government – Questions (75-90s)**

**Which principle divides government powers among three branches?**

- A) Popular sovereignty**
- B) Checks and balances**
- C) Federalism**
- D) Judicial review**

**How many U.S. Senators are there?**

**Which amendment abolished slavery in the United States?**

**What is the primary responsibility of the judicial branch?**

# **Social Studies – Civics & Government – Correct Answers**

**Correct: B) Checks and balances.**

**Correct: 100 (2 per state).**

**Correct: The 13th Amendment.**

**Correct: To interpret laws and ensure they follow the Constitution.**

# **Social Studies – Civics & Government – Questions (75-90s)**

**In what month do U.S. citizens vote for President?**

**What is the highest court in the United States?**

**What does the principle of federalism mean?**

- A) The federal government controls all decisions**
- B) Only states hold power**
- C) Power is shared between state and national governments**
- D) The Supreme Court rules over states**

**How long is the term of office for a U.S. Senator?**

# **Social Studies – Civics & Government – Correct Answers**

**Correct: November.**

**Correct: The U.S. Supreme Court.**

**Correct: C) Power is shared between state and national governments.**

**Correct: 6 years.**

# **Social Studies – Civics & Government – Questions (75-90s)**

**How long is the term of office for a U.S. Representative?**

**Which amendment gave women the right to vote?**

**What is the main purpose of the U.S. Constitution's Preamble?**

- A) Declare independence**
- B) Introduce the goals and principles of the government**
- C) Limit state power**
- D) Establish the Bill of Rights**

**Who signs bills into law at the federal level?**

# **Social Studies – Civics & Government – Correct Answers**

**Correct: 2 years.**

**Correct: The 19th  
Amendment.**

**Correct: B) Introduce the  
goals and principles of the  
government.**

**Correct: The President.**

# **Social Studies – Civics & Government – Questions (75-90s)**

**What landmark Supreme Court case established judicial review?**

**What do we call changes or additions to the Constitution?**

**Which civil rights leader delivered the “I Have a Dream” speech in 1963?**

**What system prevents one branch of government from becoming too powerful?**

# **Social Studies – Civics & Government – Correct Answers**

**Correct: Marbury v.  
Madison (1803).**

**Correct: Amendments.**

**Correct: Dr. Martin Luther  
King Jr.**

**Correct: Checks and  
balances.**

# **Social Studies – Civics & Government – Questions (75-90s)**

**What is required for Congress to override a presidential veto?**

- A) Simple majority in both chambers**
- B) Unanimous vote**
- C) Two-thirds majority in both chambers**
- D) Supreme Court approval**

**What do the first three words of the Constitution, “We the People,” express?**

# **Social Studies – Civics & Government – Correct Answers**

**Correct: C) Two-thirds majority in both chambers.**

**Correct: Popular sovereignty – government power comes from the people.**

# **Social Studies – U.S. History – Questions (75-90s)**

**What year was the Declaration of Independence signed?**

**Who was the main author of the Declaration of Independence?**

**What issue was the main cause of the U.S. Civil War?**

- A) Slavery**
- B) Westward expansion**
- C) Women's rights**
- D) Industrialization**

**Which U.S. President issued the Emancipation Proclamation?**

# **Social Studies – U.S. History – Correct Answers**

**Correct: 1776.**

**Correct: Thomas Jefferson.**

**Correct: A) Slavery.**

**Correct: Abraham Lincoln.**

# **Social Studies – U.S. History – Questions (75-90s)**

**What was the purpose of the Reconstruction era (1865–1877)?**

**What event triggered the Great Depression in 1929?**

**Which U.S. President introduced the New Deal programs?**

**Which movement in the 1950s–1960s fought to end racial segregation and ensure equal rights?**

# **Social Studies – U.S. History – Correct Answers**

**Correct: To rebuild the South and integrate formerly enslaved people into society.**

**Correct: The stock market crash.**

**Correct: Franklin D. Roosevelt.**

**Correct: The Civil Rights Movement.**

# **Social Studies – U.S. History – Questions (75-90s)**

**What event on September 11, 2001, significantly changed U.S. foreign and domestic policy?**

# **Social Studies – U.S. History – Correct Answers**

**Correct: The terrorist attacks on the World Trade Center and the Pentagon.**

# **Social Studies – Economics – Questions (75-90s)**

**What happens to the price of a product if demand increases but supply stays the same?**

- What is inflation?**
- A) A decrease in prices over time**
  - B) An increase in prices over time**
  - C) Government printing less money**
  - D) A rise in unemployment**

**Which U.S. government body controls monetary policy?**

- A) Congress**
- B) The Federal Reserve**
- C) The Supreme Court**
- D) The Treasury Department**

**What is the main purpose of a tariff?**

- A) Increase free trade**
- B) Raise money for charities**
- C) Tax imported goods to protect domestic industries**
- D) Reduce government spending**

# **Social Studies – Economics – Correct Answers**

**Correct: The price increases.**

**Correct: B) An increase in prices over time.**

**Correct: B) The Federal Reserve.**

**Correct: C) Tax imported goods to protect domestic industries.**

# **Social Studies – Economics – Questions (75-90s)**

**If the government cuts taxes and increases spending, what type of policy is this?**

**What does GDP (Gross Domestic Product) measure?**

**What is the unemployment rate an indicator of?**

# **Social Studies – Economics – Correct Answers**

**Correct: Expansionary fiscal policy.**

**Correct: The total value of goods and services produced in a country in one year.**

**Correct: The percentage of the labor force without jobs who are actively seeking work.**

# **Social Studies – Geography & the World – Questions (75-90s)**

**On a map, what does the scale show?**

**Which line of latitude is at 0°?**

**What term describes the process of increased connections and interdependence among countries?**

**Which natural resource is renewable?**

- A) Coal**
- B) Oil**
- C) Solar energy**
- D) Natural gas**

# **Social Studies – Geography & the World – Correct Answers**

**Correct: The relationship between distances on the map and actual distances on Earth.**

**Correct: The Equator.**

**Correct: Globalization.**

**Correct: C) Solar energy.**

# **Social Studies – Geography & the World – Questions (75-90s)**

**Which organization was formed in 1945 to promote peace and international cooperation?**

**Which two countries were the main rivals during the Cold War?**

**What is desertification?**

# **Social Studies – Geography & the World – Correct Answers**

**Correct: The United Nations  
(UN).**

**Correct: The United States  
and the Soviet Union.**

**Correct: The process by which  
fertile land becomes desert  
due to drought, deforestation,  
or poor agricultural practices.**