

**INGLÉS**

**PARTE 1**

**RESPONDA LAS PREGUNTAS 1 A 5 DE ACUERDO CON EL EJEMPLO**

Lee las descripciones de la columna de la izquierda (1 - 5). ¿Cuál palabra de la columna de la derecha (A - G) concuerda con cada descripción?

La opción H se usa para el ejemplo. Sobran dos palabras más.

En las preguntas 1 - 5, marque la letra correcta A - G en su hoja de respuestas.

**Object Uses**

**EJEMPLO:**

0. This is a place to go shopping for vegetables, meat, among other things

Respuesta 0. **A B C D E F G H**

1. You can play a song with this.

A. boat

E. laptop

2. This is something you need to use the Internet.

B. camera

F. movie

3. You take photos with it.

C. draw

G. music

4. To do this, you can use color pencils, crayons and paper.

D. guitar

H. swim

5. You can buy a ticket to watch this.

**PARTE 2**

**RESPONDA LAS PREGUNTAS 6 A 11 DE ACUERDO CON EL EJEMPLO**

¿Dónde puede ver estos avisos?

En las preguntas 6 - 11, marque A, B o C en su hoja de respuestas.

**EJEMPLO:**

0. Fathers and mothers:  
please, watch your babies

A. in a playground  
B. in a street  
C. in a garden

Respuesta 0. **A B C**

6. Enjoy your favorite fruit and green drinks 2x1 Today

A. in a juice store  
B. in a meat store  
C. in a candy store

9. Today 2x3 on balls and games for children

A. in a playground  
B. in a classroom  
C. in a sports store

7. Fantastic apple pies for birthdays!

A. in a cake shop  
B. in a fruit shop  
C. in a candy shop

10. You must wear shoes in the boats at all times.

A. by a lake  
B. in a shoe shop  
C. on a farm

8. Today: The child and the dog  
11:00 a.m. and 2:00 p.m.  
Tickets: \$6

A. on a poster  
B. on a painting  
C. on a book

11. PAY ATTENTION WHILE WALKING

A. In a classroom  
B. On a street crossing  
C. In a speedway

PARTE 3

RESPONDA LAS PREGUNTAS 12 A 16 DE ACUERDO CON EL EJEMPLO

Complete las cinco conversaciones.  
En las preguntas 12 - 16, marque A, B o C en su hoja de respuestas.

EJEMPLO:



Lina, how are things in your job?



- A. Not bad.
- B. Too long.
- C. Nothing else.

Respuesta 0. (A) (B) (C)

12. I'm going to the art exhibition soon.

- A. By the way.
- B. How long ago?
- C. How interesting!

13. Was the oven finally repaired?

- A. I ordered pizza.
- B. It's still not working.
- C. Did you finish?

14. You should call the waiter to pay the bill.

- A. Are you sure?
- B. Congratulations.
- C. Thank me!

15. Shall I get the door?

- A. Yes, please. I'm in the bathroom.
- B. That hardware store sells good doors!
- C. You broke the old one!

16. Look! Those men are armed to the teeth!

- A. They always bite their enemy!
- B. Wow, they have guns in their mouths!
- C. I see they're carrying many weapons!

PARTE 4

RESPONDA LAS PREGUNTAS 17 A 24 DE ACUERDO CON EL EJEMPLO

Lea el texto y seleccione la palabra correcta para cada espacio.  
En las preguntas 17 - 24, marque A, B o C en su hoja de respuestas.

A puzzle legend

Ivan Moscovich was born (17) \_\_\_\_\_ 4 June 1926. He was a legend in the world of puzzles, a fantastic inventor of toys and games. (18) \_\_\_\_\_ died at 96 years old. He designed (19) \_\_\_\_\_ than 100 toys and games. In 2020, he (20) \_\_\_\_\_ an important prize from the US toy and game industry. Actually, he was (21) \_\_\_\_\_ preparing new products well into his 90s. In 1964, Ivan started the (22) \_\_\_\_\_ Science and Technology Museum of its time. In it, there are a lot of objects which were (23) \_\_\_\_\_ by him. He wrote a puzzle book called "Big book of Brain Games", which sold (24) \_\_\_\_\_ half a million copies. Ivan's name (25) \_\_\_\_\_ not be famous today, but he was great at making amazing objects.

Ejemplo:

0. A. on

B. in

C. at

Respuesta 0. (A) (B) (C) (D)

17. A. who

B. where

C. when

18. A. must

B. much

C. more

19. A. win

B. won

C. winning

20. A. yet

B. once

C. still

21. A. good

B. better

C. best

22. A. designing

B. design

C. designed

23. A. around

B. between

C. inside

24. A. will

B. might

C. should

## RESPONDA LAS PREGUNTAS 25 A 32 DE ACUERDO CON EL EJEMPLO

Lee el texto y selecciónale la palabra correcta para cada espacio.  
En las preguntas 25 - 32, marque A, B o C en su hoja de respuestas.

## JANE AUSTEN

Jane Austen is one of the most popular writers, (0) \_\_\_\_\_ described the British people in her novels. She was born in England in 1775.  
As Jane grew up, she became close to her sister, Cassandra. She was as (25) \_\_\_\_\_ as Cassandra. Their father, George Austen, always (26) \_\_\_\_\_ them study and play in his library. He (27) \_\_\_\_\_ suggested she should do some writing experiments.  
Jane discovered her talents (28) \_\_\_\_\_ and her talents were acted in plays. Almost all of the plays they (29) \_\_\_\_\_ in their spare time were comedies. She (30) \_\_\_\_\_ explains the world of literature.  
(31) \_\_\_\_\_ six years, Jane collected her own work in her notebooks, now well-known by the title 'Juvenilia'. Today, Jane Austen's work is taught (32) \_\_\_\_\_ the world.

Ejemplo:

0. A. who

B. which

C. where

Respuesta

0 (A) (B) (C) (D)

25. A. clever

B. cleverer

C. cleverest

26. A. letting

B. let

C. lets

27. A. also

B. still

C. yet

28. A. if

B. so

C. while

29. A. perform

B. performed

C. performing

30. A. could

B. must

C. shall

31. A. Till

B. For

C. Since

32. A. along

B. above

C. around

## PARTE 5

## RESPONDA LAS PREGUNTAS 33 A 38 DE ACUERDO CON EL EJEMPLO

Lee el texto y responde las preguntas.  
En las preguntas 33 - 38, marque A, B o C en su hoja de respuestas.

## The British Museum

A wonderful event happened in 2009: The British Museum celebrated its 250th birthday. Since 1759, when it opened, the museum has brought things from all over the world, which are carefully kept and shown to the public. These objects are from people around the world who have made them over the centuries. The first exhibition was organized by Sir Hans Sloane, a doctor whose love for Nature and art began when he spent some lovely time in the West Indies, as he explains in his book about the history of Jamaica.  
Sloane used most of his money on fantastic trips far from home, where he got unusual objects for the museum. He clearly wanted to make sure that, for a low price, everybody could see what he thought were the most wonderful things he collected from other countries. Today's exhibition includes some of the most famous objects from around the world. They're organized in several huge rooms where visitors always look for explanations with the latest information about those cultural groups and future events. Sometimes visitors must pay for special exhibitions.

The museum's goals today are to be the center of international cultural studies and to teach people about world cultures. To do this, there are interesting exhibitions and excellent courses on culture. University students are also invited to become full members, which allows them to enter to the museum's library.

EJEMPLO:

0. The event celebrated at the museum in 2009 was

A. amazing.  
B. usual.  
C. pleasant.

Respuesta

0 (A) (B) (C)

33. Since his earliest days, everything the museum has brought comes from

A. A Jamaican explorer.  
B. Different cultures.  
C. Well-known artists.

34. Skane organized an exhibition soon after he
- A. made a journey.
  - B. studied medicine.
  - C. became a writer.
- 
35. What did Skane spend his money on?
- A. useful guidebooks.
  - B. large building areas.
  - C. exciting adventures.
- 
36. Skane believed that what he collected for the museum was
- A. quite modern.
  - B. certainly popular.
  - C. actually awesome.
- 
37. Visitors to the museum today are interested in the
- A. new spaces for exhibitions.
  - B. details in cultural descriptions.
  - C. free tickets for all activities.
- 
38. A clear objective for the museum today is to
- A. start a library's project.
  - B. have better college textbooks.
  - C. offer attractive education programs.

PARTE 6

RESPONDA LAS PREGUNTAS 39 A 43 DE ACUERDO CON EL EJEMPLO

Lee el texto y responde las preguntas.

En las preguntas 39 - 43, marque A, B, C o D en su hoja de respuestas.

Machines have been used to replace the work done by people for thousands of years; this immediately led to the creation of new jobs when the machines needed to be fixed. Our creativity allows us to invent machines for progress. Therefore, we use them to make new things, solve new problems, and produce whole industries that we never before imagined.

In the case of employment, machines may bring more benefits than challenges. Indeed, humans will always find a way to create machines that perform like people and replace them. For instance, I can play chess matches against a computer or use an elevator without an operator. In spite of the fact that some jobs can be replaced by machines, the good news is that they also free us from dull duties, allowing us to be more original and efficient—although of course one person being “literate” is another person who becomes “unemployed,” at least in the short term.

Human ambition is the key to keeping up with mechanization, and not doing that worries me far more than electronic robots that perform in the same way as employees. The huge increase in productivity that machines provide must be recognized as an advantage and it should not be ignored. We're very talented at developing programs and at training machines to do our former jobs - so the solution is to keep inventing new ones. The only job security for humans is to advance into the new and the unknown.

39. What is the writer doing in the article?
- A. encouraging readers to search for challenging jobs
  - B. mentioning the advantages of machines for job searching
  - C. sharing information about the disadvantages of machines for humans
  - D. discussing some challenges and advantages of machines in human productivity
40. What can a reader find out from paragraph 1?
- A. Machines are creative.
  - B. Machines benefit humans.
  - C. Machines cause problems.
  - D. Machines fix human errors.
41. Playing a chess match against a computer is an example of
- A. the negative effect of machines for employers.
  - B. helping people get rid of their boring jobs.
  - C. machines performing like humans.
  - D. how operators are always useful.
42. In the underlined sentence in paragraph 3, the writer means that human
- A. spend too much time with machines.
  - B. are not efficient compared to machines.
  - C. are not creative due to machines and programs.
  - D. need to create jobs that machines are not yet able to do.
43. What would be the general idea of the article?
- A.
  - B.
  - C.
  - D.

PARTE 6

RESPONDA LAS PREGUNTAS 44 A 47 DE ACUERDO CON EL EJEMPLO

Lea el texto y responda las preguntas.  
En las preguntas 44 - 47, marque **A, B, C o D** en su hoja de respuestas.

Art is an essential subject which should matter not only to schools, but also to the whole country. Despite the fact that the creative industries contributed \$984,100,000 to the economy of England last year, arts are usually ignored in schools. Students should start exploring art in elementary school since certain skills for their future university and job choices might be set by the time they finish their grade. However, in many cases there's only an emphasis on reading, writing and math, which sometimes means spending a whole term without a single art lesson.



So, what are the benefits of exploring arts and being creative? I believe that through art classes, students can find spaces where they may express their feelings and be recognized as individual humans. Besides, arts usually include cultural variety; children need to understand that art is made by all sorts of people in many ways, and that they can connect with several forms of art and artists. All this can help students accept each other and the differences people have, promoting work in teams.

In addition, art teachers can use other topics taught at school to encourage students to learn about art. For example, through a history lesson about World War II, students could learn about artists such as Henry Moore, who produced sculptures and other works that can be used to discuss war prisoners. Unfortunately, reports have shown that there are schools that don't have art teachers, which is unbelievable. In those cases, teachers of other subjects should aim to include short periods of creativity during the day. Of course, this is not enough. School districts must make efforts to include arts in the school curriculum to encourage students to be curious and creative.

- 44. If art is absent from elementary school, it would be difficult for students to
  - A. develop some important abilities.
  - B. help England to progress.
  - C. finish seventh grade with high grades.
  - D. be responsible professionals.
- 45. In paragraph 2, according to the writer, what benefit can the art class provide?
  - A. the possibility to discover your feelings
  - B. a sense of respect towards variety
  - C. the development of individual education
  - D. an opportunity to become an artist
- 46. In paragraph 3, what does the writer think about art at school?
  - A. Jails must be mentioned in class discussions.
  - B. Writing reports in the art class is not common.
  - C. Hiring well-trained teachers is unnecessary.
  - D. Art lessons can be easily included in different subjects.
- 47. Which is the best title for this text?
  - A. The Importance of Art in Education
  - B. European Battles and Arts
  - C. The Advantages of Being an Art Professor
  - D. Discussions on Historical Facts and Arts

PARTE 7

RESPONDA LAS PREGUNTAS 48 A 57 DE ACUERDO CON EL EJEMPLO

Lea el texto y seleccione la palabra correcta para cada espacio.  
En las preguntas 48 - 57, marque **A, B, C o D** en su hoja de respuestas.

Aquaman

Over the decades, there has been great (48) \_\_\_\_\_ from experts in comics in exploring Aquaman's origin. He has curly blond hair and (48) \_\_\_\_\_ wears tight clothing. Aquaman turned into a hero with superhuman (49) \_\_\_\_\_ such as the ability to breathe underwater and to communicate with sea creatures, amongst others. Regarding his occupation, he (50) \_\_\_\_\_ to be the leader of Atlanteans.

In the early (51) \_\_\_\_\_ of Aquaman, he was the son of a human father and an Atlantean lady. (52) \_\_\_\_\_ he became one of the first superheroes to get married. His enemies were Black Manta, who has always (53) \_\_\_\_\_ to kill Aquaman's family, and Orm Curry who would later (54) \_\_\_\_\_ know as Ocean Master.

By 1973, Aquaman had (55) \_\_\_\_\_ in animated television shows. Afterwards, the Aquamen movie made him (56) \_\_\_\_\_ like a star. If Aquaman (57) \_\_\_\_\_ appearing in more films, he will definitely become a more popular comic character.

Ejemplo:

0. A. interest      B. issue      C. view      D. look

Respuesta: 0 (A) (B) (C) (D)

48. A. slightly      B. shortly      C. usually      D. approximately

49. A. influences B. attempts C. powers D. Unless  
 50. A. used B. using C. use D. uses  
 51. A. choices B. versions C. notices D. takeaways  
 52. A. Besides B. Despite C. Within D. Instead  
 53. A. completad B. required C. intended D. focused  
 54. A. is B. be C. was D. were  
 55. A. shown B. appeared C. developed D. experienced  
 56. A. shine B. shone C. shines D. shining  
 57. A. admits B. achieves C. registers D. continues

**MATEMÁTICAS Y RAZONAMIENTO CUANTITATIVO II**

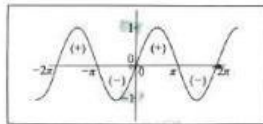
58. La figura ilustra cómo una comercializadora colombiana de huevos codifica su producto.



¿Cuántos códigos diferentes puede usar la comercializadora para huevos de gallinas criadas de forma ecológica?  
 A. 72 B. 96 C. 4 D. 14

**RESPONDA LAS PREGUNTAS 59 Y 60 DE ACUERDO CON LA SIGUIENTE INFORMACIÓN**

La siguiente gráfica describe los cambios de polaridad (positivo y negativo) de un voltaje alterno



59. El rango que describe la gráfica es  
 A. [-1,0] B. [0,1] C. [π, -π] D. [-1,1]  
 60. El periodo que describe la gráfica es  
 A. 4π B. π C. 2π D. 1/2 π

61. Un profesor de Matemáticas les pide a sus estudiantes solucionar la siguiente ecuación:

$$(x+2)(x+3)=5(x+3)$$

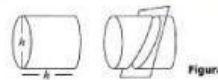
María, Nelson y Óscar siguen, cada uno, estos procedimientos:

<p><b>María</b></p> $x^2 + 5x + 6 = 5x + 15$ $x^2 + 5x - 5x = 15 - 6$ $x^2 = 9$
<p><b>Nelson</b></p> $(x+2)(x+2) - 5 = 0$ $(x+3)(x-3) = 0$
<p><b>Óscar</b></p> $2x + 5 = 5x + 3$ $2x - 5x = 3 - 5$ $-3x = -2$ $3x = 2$

¿Cuál o cuáles de los estudiantes desarrollaron un procedimiento correcto para solucionar la ecuación?

- A. Solo María y Óscar B. Solo María y Nelson  
 C. Solamente Óscar D. Solamente Nelson.

62. La figura ilustra un corte transversal, hecho de forma oblicua con un plano, a un cilindro circular recto de altura igual al diámetro de las bases. La curva que resulta del corte corresponde a una elipse.



Si el corte se hiciera de forma longitudinal, con el plano perpendicular a las bases y pasando por el centro de ellas, ¿cuál sería la figura resultante?

- A. Una circunferencia de radio  $h$ .  
 B. Un rectángulo de lados  $h$  y  $2h$ .  
 C. Un cuadrado de lado  $h$ .  
 D. Una elipse de eje mayor  $h$ .