

GAP

General Academic Prerequisites
Sample Test

There are three gaps in the following short text, indicating that something has been omitted in the sentence. From the options provided, choose three words that **best** fit the meaning and the style of the text.

1.

_____ last year South Moravian farmers suffered from drought and then heat, which reduced the already _____ harvest, this year tropical heat only _____ a few days.

- (A) However – small – took
- (B) Since – low – persisted
- (C) Because – bad – harmed
- (D) **While – poor – lasted**
- (E) Though – insignificant – reached

From options A–E, choose the **best pair of words** to fill in the gaps (in the order provided), so that the relationship between the words **to the right** of the equal sign (=) is **most** like the relationship between the words **to the left** of the equal sign.

2.

BICYCLE : _____ = _____ : EYE

- (A) motorbike – face
- (B) **wheel – head**
- (C) road – glasses
- (D) car – sight
- (E) speed – nose

The following text contains one part whose meaning **does not correspond** with the overall meaning of the text. Choose the option with the part of the text which **is not consistent with its overall meaning**.

3.

The British court has imposed a tougher, nine-year sentence on the man who lit a cigarette in a plane toilet, forcing the aircraft with more than two hundred people on board to start an emergency descent. The cigarette butt jeopardised the flight by causing a difficult to manage fire in a wastepaperbin. Originally, John Cox from the UK was supposed to serve fourteen years in prison for his act, but the court of appeal reduced the sentence by five years on Thursday. It thus agreed with the Attorney General, who considered the original sentence for public danger to be insufficient. Cox is likely to appeal the extension of the unconditional sentence.

Which of the following parts of the text is **not consistent** with its overall meaning?

- (A) The British court has imposed a tougher, nine-year sentence on the man who lit a cigarette in a plane toilet,
- (B) forcing the aircraft with more than two hundred people on board to start an emergency descent.
- (C) **Originally, John Cox from the UK was supposed to serve fourteen years in prison for his act, but the court of appeal reduced the sentence by five years on Thursday.**
- (D) It thus agreed with the Attorney General, who considered the original sentence for public danger to be insufficient.
- (E) Cox is likely to appeal the extension of the unconditional sentence.

Answer the following questions using **only** the information given in or implied by the text.

4.

During the Olympic Games in Melbourne in 1956, a medal in the high jump was won for the very first time by a Russian – Igor Kashkarov. In 1957, his countryman Igor Stepanov, whose special shoes worked as a small trampoline, improved the world record in this discipline to 216 centimetres.

Which of the following statements can be inferred from the text with certainty?

- (A) All high jumpers jumped barefoot before the Melbourne Olympics.
- (B) **In the 1950s, a Russian set a new world record in the high jump.**
- (C) In 1957, Stepanov broke Kashkarov's world record.
- (D) In Melbourne in 1956, a world record was set in the high jump.
- (E) The high jump first appeared at the Melbourne Olympics.

5.

After the First World War, the League of Nations entrusted Namibia to the Union of South Africa as a mandate territory to prepare the country for gaining independence. However, the Union of South Africa regarded Namibia to be its fifth province and, in 1925, declared the country to be an integral part of the Union of South Africa.

Which of the following statements can be inferred from the text with certainty?

- I. Namibia has been an integral part of South Africa since 1925 until the present.
- II. Namibia fought on the side of the defeated powers in the First World War.
- III. The League of Nations supported the idea of Namibia's independence after the First World War.

- (A) only I
- (B) **only III**
- (C) I and II
- (D) I and III
- (E) II and III

The use of a calculator is not permitted! Unless indicated otherwise, all numbers used are real numbers based on the decimal system. If any item contains a variable, all its possible values must be considered for the solution.

6.

The total prize money was divided among the best three competitors at a ratio of 5 : 3 : 1 (from best to worst). What was the total prize money if the first competitor received CZK 2,000 more than the third?

- (A) **CZK 4,500**
- (B) CZK 5,000
- (C) CZK 5,500
- (D) CZK 7,000

7.

Leo has twice as many stamps as Martin. Norbert has the same number of stamps as Leo and Martin together. If Norbert gives 30 stamps to Martin, all three will have the same number. Altogether, how many stamps do the three boys have?

- (A) 240
- (B) **180**
- (C) 150
- (D) 120

In the following items, compare the values of the expressions on the left and on the right and choose answer

- (A) if the value on the left is greater,
- (B) if the value on the right is greater,
- (C) if the values are equal,
- (D) if it cannot be determined which value is greater (i.e. it cannot be unequivocally decided if the value on the left is greater than the value on the right, smaller than the value on the right or the same as the value on the right).

Information regarding one or both expressions is always given above the expressions.

8.

20 % of x is equal to five

25 % of y is equal to six

$0,6x$	$0,75y$
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- (A) The value on the left is greater than the value on the right.
 - (B) **The value on the right is greater than the value on the left.**
 - (C) The value on the right is the same as the value on the left.
 - (D) It cannot be determined which value is greater.
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9.

$$a < 0$$

a^4	$(-a^2)^2$
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- (A) The value on the left is greater than the value on the right.
 (B) The value on the right is greater than the value on the left.
 (C) **The value on the right is the same as the value on the left.**
 (D) It cannot be determined which value is greater.

The following item consists of a question and two statements, marked as (1) and (2), which contain certain information. The item also includes introductory information. Using all this information, knowledge of mathematics and well-known facts (i.e. the number of days in July, what is meant by “from left to right”, etc.), decide whether the information is **sufficient to determine an unambiguous answer** to the question asked.

10.

Three political parties ran in the election: Party A, Party B and Party C. Which of these parties won the lowest number of valid votes?

- (1) Parties B and C together won 90% of the valid votes.
 (2) Party C won five times fewer votes than Party B.
 (A) Statement (1) alone is sufficient, but statement (2) alone is not sufficient.
 (B) Statement (2) alone is sufficient, but statement (1) alone is not sufficient.
 (C) **Both statements together are sufficient, but neither statement alone is sufficient.**
 (D) Either statement alone is sufficient.
 (E) Statements (1) and (2) together are not sufficient.

The following item is based on a **text** or an **equation**, an **inequality**, a **function notation** or another **mathematical expression**, or a **combination** thereof. The solution of the item consists in mathematising a certain situation or, conversely, transforming the mathematical directions into verbal form.

11.

There are b boys and g girls in the club altogether, including Mark and his sisters, Jane and Alice. There are twice as many other boys as other girls in the club (i. e. not counting the three siblings). Which of the following options describes this situation?

- (A) $2(b - 1) = g - 2$
 (B) $(b + 1) = 2(g + 2)$
 (C) **$b - 1 = 2(g - 2)$**
 (D) $b - 1 = 2g - 2$

Each of the following items is based on a text and a set of conditions. Pay attention to which conditions apply to the whole set of items and which conditions are specified for one item only. For some items, it may be helpful to use a rough sketch.

Text for items 12 to 14

Peter has seven lessons on Monday: Czech, English, Maths, Chemistry, Physics, Biology and Geography. We know that:

- The lessons immediately follow each other and start with the first lesson.
- Peter's favourite subjects are English, Maths, Physics and Chemistry.
- No two of Peter's favourite subjects immediately follow each other.
- The last lesson is neither Maths nor English.
- Czech is right after Chemistry.
- The fourth lesson is Geography.
- The Geography lesson takes place earlier than the Biology lesson.

12.

Which subject does Peter have as the first lesson?

- (A) Maths
 - (B) Physics
 - (C) English
 - (D) Chemistry**
 - (E) Biology
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13.

Which of the following statements is certainly true?

- (A) The first lesson is Biology.
 - (B) The Geography lesson immediately follows Czech.
 - (C) The Chemistry lesson is the last one in the timetable.
 - (D) The Physics lesson is immediately after Czech in the timetable.
 - (E) The last lesson is Physics.**
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14.

Where can Maths be in the timetable?

- (A) only as the first lesson
 - (B) only as the third lesson
 - (C) either as the third lesson or as the fifth lesson**
 - (D) either as the first lesson or as the sixth lesson
 - (E) either as the fourth lesson or as the fifth lesson
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