

LEAP INTO ENGLISH

TOEFL PREPARATION COURSE

Read the following text, then answer the questions.

Searching for Exoplanets

The possible discovery of life on other planets has been one of the most tantalizing and challenging questions for science and **one** that recent advances in scientific space technology have brought closer to reality. The search for exoplanets – planets outside our solar system – is one of the newest and most exciting developments in the field of astronomy.

Previously, scientists were only able to find large hot planets that orbit their star within a very close range. These planets are so hot that there is very little likelihood of finding life on them. Larger and more powerful telescopes are now enabling scientists to track down smaller exoplanets. The aim is to find planets that are similar in size to Earth and are in a habitable zone. **This** means that their orbit does not take them so close to the sun that they are extremely hot and not so far away that they do not get enough heat or light for life to form.

One problem in detecting planets is that they do not emit any light, so it is difficult to observe them directly. Telescopes, such as the Kepler telescope launched by NASA in 2009, observe thousands of stars constantly. One method of locating planets is the transit method. When a planet orbits a star, some of the starlight is blocked by the planet, so the star appears to dim slightly. When **this** occurs at regular intervals, it establishes the presence of a planet. This method can be used to measure the planet's size and mass.

The first exoplanet that is similar to the size of Earth was found in 2011. Named Kepler 20-e, it has a radius of approximately 0.87 times that of Earth and has a rocky surface, just like Earth. Its orbit is very close to its star and takes just 6.1 days. **For this reason**, it is extremely hot and does not have the conditions to support water or life.

In the coming years, scientists predict that it is very likely that telescopes will discover more planets that are **Earth-analogues**, and it is possible that some of them will be in the habitable zone.

Directions: Answer the questions.

1. What does **one** refer to in paragraph 1?

☐ discovery	☐ planet
☐ life	☐ question

2. What does **this** refer to in paragraph 2?

☐ to find planets	☐ in a habitable zone
☐ a similar size to Earth	☐ not too hot

3. What does **this** refer to in paragraph 3?

☐ The planet is observed by telescope.	☐ The planet orbits the star.
☐ The presence of a planet	☐ The star becomes less bright.

4. What does **this reason** refer to in paragraph 4?

- ☐ It is smaller than Earth.
- ☐ It travels close to its star.
- ☐ Its orbit is six days.
- ☐ It has a rocky surface.

5. All of these are true of the Kepler telescope EXCEPT

- ☐ it observes many stars and planets.
- ☐ it can estimate the size of a planet.
- ☐ it records any decrease in light from stars.
- ☐ it observes planets directly.

6. Which is closest in meaning to the highlighted word in paragraph 5?

- ☐ They can be reached from Earth.
- ☐ They are near to Earth.
- ☐ They are like Earth.
- ☐ They are habitable.

7. An introductory sentence for a summary of the passage is provided below. Complete the summary by selecting the **THREE** answer options that express the most important ideas in the passage. Some sentences do not belong in the summary. Because they express ideas that are not presented in the passage or are minor ideas in the passage.

This passage describes the search for exoplanets.

- ☐ _____
- ☐ _____
- ☐ _____

Answer options

1. New telescopes have made it possible to find planets outside our solar system.
2. Habitable exoplanets are neither too close nor too far away from their star.
3. It is easy to identify stars because they emit light.
4. It may be possible to find life on an exoplanet one day.
5. Planets without water are often very hot.
6. Kepler 20-e is slightly smaller than Earth.