# DEMO VERSION OF OLYMPIAD ASSIGNMENTS 

## PHILOSOPHY

$11^{\text {th }}$ GRADE<br>to be completed within 120 minutes the maximum score is $\mathbf{1 0 0}$ points.

## PART I.

## Assignment 1. Please read an extract from the English mathematician Alan Turing's article "Can Machines Think?" Read the text and answer the questions. The maximum score is $\mathbf{3 0}$ points.

"The game is played with three people, a man (A), a woman (B), and an interrogator (C) who may be of either sex. The interrogator stays in a room apart front the other two. The object of the game for the interrogator is to determine which of the other two is the man and which is the woman. He knows them by labels $X$ and $Y$, and at the end of the game he says either " X is A and Y is B " or " X is B and Y is A ." The interrogator is allowed to put questions to A and B thus:

C: Will X please tell me the length of his or her hair?
Now suppose X is actually A , then A must answer. It is A's object in the game to try and cause C to make the wrong identification. His answer might therefore be:
"My hair is shingled, and the longest strands are about nine inches long."
In order that tones of voice may not help the interrogator the answers should be written, or better still, typewritten. The ideal arrangement is to have a teleprinter communicating between the two rooms. Alternatively, the question and answers can be repeated by an intermediary. The object of the game for the third player (B) is to help the interrogator. The best strategy for her is probably to give truthful answers. She can add such things as "I am the woman, don't listen to him!" to her answers, but it will avail nothing as the man can make similar remarks.

We now ask the question, "What will happen when a machine takes the part of A in this game?" Will the interrogator decide wrongly as often when the game is played like this as he does when the game is played between a man and a woman?

When a machine takes part in the game, the interrogator cannot figure out which of the players is a human being, and which one is the machine. Is it correct to assume that such a machine can think? How can we know that other people are capable of thinking? Please explain your answers using known philosophical and/or scientific theories.

## Assessment criteria

This assignment poses three key questions:

1. What would happen when a machine plays the role of A in this game? Will the interrogator decide incorrectly as often when the game is played like this as he would if the game is played between a man and a woman?
2. Supposing that when a machine takes part in the game, the interrogator is unable to figure out which of the players is a human being, and which one is a machine. Can we assume that such a machine is capable of thinking?
3. How can we know that other people can think?

The maximum score for a substantiated answer to each of these three questions is 10 points. The ideas of philosophers, scientific facts and theories, as well as aspects of one's social experience, can be used as arguments.

| Descriptor (for each question) | Score |
| :--- | :--- |
| A substantiated logical answer has been provided, relying on arguments <br> from various sources. | 10 |
| A substantiated answer has been provided, but there are gaps in the argu- <br> mentation, OR the participant relied exclusively on common knowledge. | 5 |
| No substantiated answer has been provided. | 0 |

Assignment 2. You are invited to take part in a theoretical ethical experiment. Please read the text and answer the questions. The maximum score is 30 points.

You are on a sea cruise. Something out of the ordinary happens aboard two days into your journey, and the captain announces an emergency stop. In two hours, the captain informs the passengers that the ship is damaged, and all passengers must be evacuated on inflatable lifeboats. The captain sends out an SOS, and you find yourself in one of the boats with another nine passengers.

While the boat is being launched, it gets stuck to the side of the ship and gets ruptured! Fortunately, the size of the puncture is small enough that you can bail water out and stay afloat. All nine passengers can bail the water out and take turns to rest. As such, the boat will be kept afloat for five hours. If you are not rescued in five hours, the boat will sink, and all of the passengers will perish. Keeping in mind the risks, all passengers start to work.

When it is your turn to rest, you notice another lifeboat approaching. There is one spare place in that boat, and a friend of yours who is steering the boat invites you to join him immediately. You realize that if you flee, the other passengers will have to bail water out without any rest, and they can only do this for two hours.

So, you have two options: stay in the boat and wait until you are rescued, or flee right away, leaving the people in the damaged boat only two hours until they are either rescued or die.

## What should you do in this situation? Please explain your answer using known ethical theories (cite at least two theories).

## Answers and evaluation criteria

In his/her answer to the question, the Olympiad participant must provide arguments in favour of his/her decision based on known ethical theories. The following framework for a satisfactory answer may be suggested: "From the perspective of Kantian autonomous ethics, a person should be treated not only as a means, but also as a goal. The passengers in the boat can be my goal, which means I should not leave them, reducing their chances for survival. On the other hand, if we follow Bentham's principle of utilitarianism, the maxim of my action should be the greatest happiness for the greatest number of people. If I stay, and nobody comes to rescue these people, we will all die. If I flee, at least one person will survive." Other theories and ar-
guments may be used.

| Descriptor | Score |
| :--- | :--- |
| A substantiated logical answer has been provided, relying on two ethical <br> theories. | 30 |
| A substantiated logical answer has been provided, relying on one ethical <br> theory. | 20 |
| A substantiated answer has been provided, but knowledge of ethical theo- <br> ries has not been demonstrated, OR there are logical mistakes in the an- <br> swer. | 10 |
| No arguments or no answer have been provided. | 0 |

## PART II.

## Please solve the following logical problems

## 1. How old is my friend? ( 10 points)

My friend's family has a tradition: they always tell the truth on even dates and lie on odd dates. Yesterday, he said: "I will tell you the truth tomorrow." Today, he said that he was 18 years old. The day before yesterday, he said that he was 81 . What is his real age? Please explain your answer:

## Answers and evaluation criteria

Answer: 81 years
Resolution:

1) The statement "I will tell you the truth tomorrow" could have been said either when an even date follows an even date (which is impossible), or when an odd date follows an odd date (this happens every time in months with an odd number of days).
2) Therefore, yesterday's and today's statements are false. And the day before yesterday's statement is true.
3) He is 81 years old.

| Descriptor | Score |
| :--- | :--- |
| A correct substantiated answer has been provided. | 10 |
| A correct answer has been provided, but there are gaps in the arguments. | 5 |
| A correct answer but no arguments have been provided, OR an incorrect | 0 |

## 2. Circus - $\mathbf{1 5}$ points

Three friends work in the circus: an illusionist, a strongman, and an acrobat. Their names are Gudini, Zudini, and Chudini. The youngest one has no siblings. The illusionist is younger than Chudini. Gudini is older than his brother-in-law who is an acrobat. Find out who is who. Please explain your answer:

## Answers and evaluation criteria

Answer: Gudini is the strongman, Zudini is the illusionist, and Chudini is the acrobat.

Solution:

1) Chudini and Gudini are not the youngest (conditions 2 and 3). Therefore, Zudini is the youngest.
2) The youngest one has no siblings (conditions 1), therefore, Zudini cannot be anyone's brother-in-law. It means that he is not an acrobat (condition 3).
3) Gudini is not an acrobat either (condition 3). Therefore, Chudini is the acrobat.
4) Acrobat Chudini is younger than Gudini, while the illusionist is still younger than Chudini (condition 3). Therefore, the illusionist is the youngest one (i.e., Zudini).
5) Following the method of exclusion, Gudini is the strongman.

| Descriptor | Score |
| :--- | :--- |
| A correct substantiated answer has been provided. | 15 |
| A correct answer has been provided, but there are gaps in the arguments. | 10 |
| A correct answer has been provided, but there are significant gaps in the <br> arguments. However, the course of arguments allowed the participant to <br> reach the correct conclusion. | 5 |
| A correct answer and no arguments have been provided, OR an incorrect <br> answer has been provided. | 0 |

## 3. Right-handed and left-handed persons

Only two types of people live in the city of N.: right-handed and left-handed persons. Right-handed persons always use their right hand to write the truth and their left hand - when writing lies. Left-handed persons always use their right hand when writing lies, and their left hand to write the truth. There is a note written on a wall: "I've written this with my right hand." And below, in a different handwriting, a postscriptum: "If you are right-handed, I've written this with my left hand." To what categories do both authors belong? Please explain your answer:

## Answers and evaluation criteria

Answer: 1 - right-handed; 2 - left-handed.

Solution:

1) If the author of the first statement were left-handed, we would have recognized the liar paradox. Therefore, he can't be left-handed. He is right-handed.
2) If the second statement is true, it should have been written with the left hand (because the author of the previous statement is actually right-handed). If it is false, it would have been written not with the left hand, but the right (the implication is false, when the antecedent is true, and the consequent is false). Therefore, the second statement might have been written only by a left-handed author.

| Descriptor | Score |
| :--- | :--- |
| A correct substantiated answer has been provided. | 15 |
| A correct answer has been provided, but there are gaps in the arguments. | 10 |
| A correct answer has been provided, but there are significant gaps in the <br> arguments. However, the course of arguments allowed the participant to <br> reach the right conclusion. | 5 |

