Instructions:

Task Definition: Break each step into individual sentences, analyze and evaluate the given reasoning chains into specific reasoning error taxonomy(categories and sub categories).

Evaluation Instructions: Analyze each sentence by dividing it into a premise and conclusion, evaluate errors based on the correct solution, and classify according to specific error categories and subcategories.

Error Taxonomy:

Broad categories:

RR: Right Premise, Right conclusion
WR: Wrong Premise, Right conclusion
RW: Right Premise, Wrong conclusion
WW: Wrong Premise, Wrong conclusion
NC: No Conclusion: Sentences containing only information from Problem, options or premises from previous steps fall under this category.

Sub categories:

Wrong premise:

1. Error propagation: Premise taken from previous wrong conclusion.

2. Misinterpretation: Incorrect interpretation of passage, options or previously concluded steps in premise.

Wrong conclusion:

1. Insufficient information: Draws conclusions based on insufficient information and misses important information such as passage conditions or previously deduced correct information.
2. Wrong assumption: Assumes wrong conditions which lead to wrong conclusion.
3. Contradiction: Draws a conclusion that contradicts a previous premise.
4. Misinterpretation: Conclusion based on Incorrect interpretation of passage, options or previously concluded steps.
5. Hallucination: Considers out of context information which is not present in clues leading to wrong conclusion.
6. Wrong Reasoning: Incorrect reasoning approach used to reach the conclusion.
7. Error propagation: Conclusion drawn from wrong premise.

- For a sentence that falls under WW, the sub category is defined as [WW, [Wrong Premise error, Wrong Conclusion error]]

- For a sentence that falls under RW, the sub category is defined as [RW, [Wrong Conclusion error]]
- For a sentence that falls under WR, the sub category is defined as [WR, [Wrong Premise error]]

Example:

Passage: A provincial Go team coach selects 4 of the 7 players from E, F, G, H, J, K and M to participate in the professional league.The selection must meet the following conditions? E or F has one person to participate, but not both .One of J or K will participate, but not both.If J participates, then G participates.Unless F participates, M does not participate.

Question: Which of the following listed players cannot participate in the game together?

Options:

A. E and J

C. E and M

B. F and G

D. F and J

Reasoning Chain:

Step-by-step solution:

1. The coach selects 4 players from E, F, G, H, J, K, and M. We have the following conditions:

- E or F has one person to participate, but not both.

- One of J or K will participate, but not both.

- If J participates, then G participates.

- Unless F participates, M does not participate.

2. We need to find out which group of players cannot participate in the game together. Let's analyze each option given:

- A: E and J

- B: E and M

- C: F and G

- D: F and J

3. Let's consider option A: E and J. According to the conditions, if J participates, then G also participates. So, in this case, E and G will also be part of the team. This doesn't necessarily mean that E and J cannot participate together. So, we need to consider other options as well.

4. Now let's consider option B: E and M. The condition states that unless F participates, M does not participate. This means if E participates, M can participate if F is also participating. So, E and M can participate together if F is also in the team. So, this option is not necessarily a pair that cannot participate together. --- wrong conclusion -incorrect information/Wrong Elimination/EP

5. Next, let's consider option C: F and G. The condition states that unless F participates, M does not participate. This means if F participates, then M can participate as well. Now, the condition also states that if J participates, then G participates. This means that if F participates, then G will also participate. So, this option is not necessarily a pair that cannot participate together.

6. Now, let's consider option D: F and J. The condition states that one of J or K will participate, but not both. This means that if J participates, then K cannot participate, and vice versa. Also, the condition states that if J participates, then G participates. However, the condition states that unless F participates, M does not participate. This means if J participates, then F must also participate to allow M to participate. This creates a contradiction because the condition states that one of J or K will participate, but not both, but in this case, both F and J are participating, and also G will participate as J participates. So, F and J cannot participate in the game together. --WW - -6(a)Wrong Reasoning

7. After analyzing all options, we can conclude that option D: F and J is the pair that cannot participate in the game together.

Final Answer: D

Human evaluated Reasoning chains:

Step-by-step solution:

1. The coach selects 4 players from E, F, G, H, J, K, and M. We have the following conditions: - E or F has one person participate, but not both.

- One of J or K will participate, but not both.

- If J participates, then G participates.

- Unless F participates, M does not participate.

Premise:

Error Category: RR

Error Sub Category: -

2. We need to find out which group of players cannot participate in the game together. Let's analyze each option given:

- A: E and J

- B: E and M

- C: F and G

- D: F and J

Error Category: RR

Error Sub Category: -

3. Let's consider option A: E and J. According to the conditions, if J participates, then G also participates.

Error Category: NC

Error Sub Category: -

So, in this case, E and G will also be part of the team. This doesn't necessarily mean that E and J cannot participate together. So, we need to consider other options as well.

Error Category:RR

Error Sub Category:

4. Now let's consider option B: E and M. The condition states that unless F participates, M does not participate. This means if E participates, M can participate if F is also participating. So, E and M can participate together if F is also in the team. So, this option is not necessarily a pair that cannot participate together.

[-RW, premise is correct, but while arriving to the conclusion, it missing on(does not consider) some already provided information necessary to arrive to the conclusion, and hence incorrect conclusion][or the premise is insufficient]

Error Category: RW

Error Sub Category: Insufficient information

5. Next, let's consider option C: F and G. The condition states that unless F participates, M does not participate. This means if F participates, then M can participate as well.

Error Category:

Error Sub Category:

Now, the condition also states that if J participates, then G participates. This means that if F participates, then G will also participate.

[RW, Right premise, but wrong conclusion because of wrong interpretation of the premise]

Error Category: RW

Error Sub Category: Misinterpretation

So, this option is not necessarily a pair that cannot participate together.

[WR, the conclusion of the previous statement taken as premise was wrong, but based on that premise, it arrives to correct conclusion]

Error Category:WR

Error Sub Category: Error Propagation

6. Now, let's consider option D: F and J. The condition states that one of J or K will participate, but not both. This means that if J participates, then K cannot participate, and vice versa.

Error Category:RR

Error Sub Category: -

Also, the condition states that if J participates, then G participates. However, the condition states that unless F participates, M does not participate. This means if J participates, then F must also participate to allow M to participate.

[RW, the premise is correct but it gave misleading information as conclusion instead of ending.]

Error Category: RW

Error Sub Category:[Hallucination]

This creates a contradiction because the condition states that one of J or K will participate, but not both, but in this case, both F and J are participating, and also G will participate as J participates. So, F and J cannot participate in the game together.

[WW as the premise(conclusion of the previous statement) is wrong and in conclusion it considers unwanted information and hence leading to incorrect conclusion]

Error Category: WW

Error Sub Category: [Error propagation, Hallucination]

7. After analyzing all options, we can conclude that option D: F and J is the pair that cannot participate in the game together.

[WW as premise (conclusion of the previous statement) is wrong leading to wrong conclusion]

Error Category: WW

Error Sub Category: [Error propagation, error propagation]

Final Answer: D

Correct answer: B

Passage: Even the most experienced jewelry collectors will not buy diamonds based on their naked eye identification.They are worried that their eyes will be deceived by fakes.Since the most experienced jewelry collectors cannot distinguish a fake from a real diamond with the naked eye, the fake has the same aesthetic enjoyment as the real one, and the two pieces of jewelry have the same value.

Question: If which of the following statements is true, which strongly supports the above argument?

Options:

A.The most experienced jewelry collectors cannot distinguish fakes from real diamonds.

B.The most experienced jewelry collectors only collect jewelry that is more aesthetically pleasing.

C.The value of a piece of jewelry depends largely on the needs of the market.

D.The value of a piece of jewelry should be entirely determined by the aesthetic enjoyment it provides.

Reasoning Chain:

Step-by-step solution:

1. The argument is about the value of diamonds, specifically whether experienced collectors can distinguish fake diamonds from real ones based on their aesthetic enjoyment.

2. The argument states that even experienced collectors cannot distinguish fake diamonds from real ones with their naked eye, implying that the aesthetic enjoyment is the same for both.

3. The argument concludes that the fake diamond has the same value as the real one.

4. We need to find a statement that strongly supports this argument.

Let's analyze each option:

A: This statement is a premise of the argument, but it doesn't necessarily support the conclusion that the value of a diamond is determined by its aesthetic enjoyment.

B: This statement is irrelevant to the argument. The aesthetic pleasure of a piece of jewelry is not the only factor that determines its value.

C: This statement suggests that the value of a piece of jewelry is influenced by market demand, which is a factor that can affect the value of a diamond. If the market demand for diamonds is high, even a fake diamond may have the same value as a real one due to its rarity and market demand.

D: This statement is too absolute and doesn't take into account other factors that can influence the value of a piece of jewelry.

Based on this analysis, the statement that strongly supports the argument is the one that highlights the influence of market demand on the value of a piece of jewelry.

Final Answer: C

Gold Solution: D