Appropriate and Sufficient Clues

Relevant Terms

**Appropriate**- suitable for the circumstances; relevant, fitting, proper

*Clues that are appropriate will actually matter and help you advance towards the solution.*

**Sufficient**- enough to meet the needs of a situation; enough, adequate

*A problem that has insufficient clues will not have enough information to solve the problem.*

**Prior Knowledge**- knowledge that comes from previous experience and is already understood

*He had no prior knowledge of electricity, so he had trouble making the flashlight work.*

Problem 1

Pablo, Pedro, Alyssa, and Bob arrived at school at different times. In what order did they arrive?

1. Pedro was not the first or last to arrive.
2. Bob has an afro.
3. Alyssa walked with her little sister to school.
4. Pablo arrived before Pedro.
5. Alyssa arrived after Pedro.
6. Bob arrived first.
7. Pablo’s mom drove him to school and Bob walked.

Your Job

A) Solve the problem in the space above and write the conclusion statement.

B) Identify the evidence that is not relevant. Cross out all inappropriate evidence.

C) Is the evidence provided in this problem sufficient? Why or why not?

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D) Was there any prior knowledge necessary to solve this problem?

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Problem 2

There are 4 types of fish in the sea. They all live in different colored reefs. The fish are either red, green, orange, or blue, and the reefs are blue, orange, purple, and yellow.

What color reef belongs to each fish?

1. The red fish has 8 fins and does not like blue.
2. The green fish abhors the yellow reef.
3. The orange fish is not living in the orange reef.
4. The blue fish is living in the blue reef.
5. The yellow reef belongs to a fish that is not blue.

Your Job

A) Solve the problem in the space above and write the conclusion statement.

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6. Bob arrived first.
7. ~~Pablo’s mom drove him to school and Bob walked.~~

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 |
| Pedro | X | X | O | X |
| Bob | O | X | X | X |
| Alyssa | X | X | X | O |
| Pablo | X | O | X | X |

*Bob arrived first; Pablo arrived second. Pedro came third, and Alyssa was last to arrive.*

Your Job

A) Solve the problem in the space above and write the conclusion statement.

B) Identify the evidence that is not relevant. Cross out all inappropriate evidence.

C) Is the evidence provided in this problem sufficient? Why or why not?

\_\_\_\_\_*The evidence provided is sufficient because there is enough information to determine the order of arrivals.* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

D) Was there any prior knowledge necessary to solve this problem?

\_\_\_\_\_*No, to solve this problem you only need the information provided in the problem.*

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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Blue | Orange | Purple | Yellow |
| Red | X |  |  |  |
| Green | X |  |  | X |
| Orange | X | X |  |  |
| Blue | O | X | X | X |

Your Job

A) Solve the problem in the space above and write the conclusion statement.

B) Identify the evidence that is not relevant. Cross out all inappropriate evidence.

C) Is the evidence provided in this problem sufficient? Why or why not?

\_\_\_\_\_\_*The evidence provided is insufficient because there is not enough information to determine where the red, green, or orange fishes live.* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

D) Was there any prior knowledge necessary to solve this problem?

\_\_\_\_\_\_*In order to solve this problem, you needed to know that “abhor” means\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ “hate.”*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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