Observations & Inferences

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Part 1: Qualitative vs. Quantitative observations

Which type of observations are these? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

List 3 descriptions for each sense.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Looks like | Smells like | Feels like | Sounds like | Tastes like |
|  |  |  |  |  |

Which type of observations are these? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Remember correct UNITS!!! Use the Metric System!!!)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Mass | Volume | Density  | Diameter | Circumference |
|  |  |  |  |  |

PART II: Beside the picture, write a detailed account of what happened in the cartoon. Describe the scenario using a minimum of 5 complete sentences.



1. Read the definitions below:

-Observation: the act of seeing an object or an event and noting the physical characteristics or points in the event. Observation is an extension of our senses—what is seen, smelled, tasted, heard, and touched.

-Inference: conclusions based on observations. Inferences go beyond what we directly sense.

1. Read the account you wrote beside the Far Side cartoon.

Underline all the observations once. Underline the inferences twice.

1. Place an “O” next to observation and an “I” next to inference. Then write your own for the final two blanks.

\_\_\_\_\_ The time of day in the cartoon is unknown.

O: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

I: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ The person is wearing shoes and socks.

\_\_\_\_\_ The person pictured is a man.

\_\_\_\_\_ The chin-up bar is set too high.

\_\_\_\_\_ The chin-up bar arrived in one package.

\_\_\_\_\_ The person pictured has less than 20/20 eyesight.

\_\_\_\_\_ The person is lying on their back.

\_\_\_\_\_ The person has sustained an injury.

\_\_\_\_\_ The frame of the glasses is bent.

\_\_\_\_\_ This was the first time the person used a chin-up bar.

1. Scientists make inferences as they attempt to develop answers to questions about natural phenomena. Even though their answers are consistent with the evidence available, often no single answer or story solely accounts for that evidence. Nevertheless, as with the case of this cartoon, some inferences are better supported by multiple observations.

Create 3 different inferences to explain why the person is lying on the ground. For each inference, provide one piece of supporting evidence.

Inference: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evidence: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Inference: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evidence: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Inference: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evidence: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Indicate which inference is most plausible by marking a star next to it.

1. What additional evidence exists in the cartoon to support this inference?