Assignment: \_\_\_\_\_

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour:\_\_\_\_\_\_\_\_\_

**Observations vs Inferences AND Qualitative vs Quantitative**

**Observation:**

**Inference:**

Read/look at the following examples and make an observation and an inference about each:

1. You look outside and the grass is wet. Observation:

Inference:

1. The principal interrupts class and calls a student to the hallway.

Observation:

Inference:

1. 

Observation:

Inference:

**Qualitative observations:**

**Quantitative observations:**

Read the following examples and then decide if the example is qualitative (1) or quantitative (2).

1. It is light green in color. \_\_\_\_\_\_\_\_ (1 or 2)

2. It taste sour. \_\_\_\_\_\_ (1 or 2)

3. One leaf is 9 cm long. \_\_\_\_ (1 or 2)

4. It makes a loud pop sound. \_\_\_\_ (1 or 2)

5. The mass of the computer is 1 1/2 kg. \_\_\_\_ (1 or 2)

6. It smells sweet. \_\_\_\_ (1 or 2)

7. The temperature of the room increases by 8 degrees C. \_\_\_\_ (1 or 2)

8. The flower clusters in 3 blooms. \_\_\_\_ (1 or 2)

9. Leaves are stiff. \_\_\_\_ (1 or 2)

10. The veins are 3 mm wide. \_\_\_\_ (1 or 2)

Write a qualitative example:

Write a quantitative example:

What type of observation (qualitative or quantitative)do you think is more scientific and why?

**Practice Page (on your own):**

Determine which of the following statements are quantitative and which are qualitative.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_ The cup had a mass of 454 grams.

2. \_\_\_\_\_\_\_\_\_\_\_\_\_ The temperature outside is 250 C.

3. \_\_\_\_\_\_\_\_\_\_\_\_\_ It is warm outside.

4. \_\_\_\_\_\_\_\_\_\_\_\_\_ The tree is 30 feet tall.

5. \_\_\_\_\_\_\_\_\_\_\_\_\_ The building has 25 stories.

6. \_\_\_\_\_\_\_\_\_\_\_\_\_ The building is taller than the tree.

7. \_\_\_\_\_\_\_\_\_\_\_\_\_ The sidewalk is long.

8. \_\_\_\_\_\_\_\_\_\_\_\_\_ The sidewalk is 100 meters long.

9. \_\_\_\_\_\_\_\_\_\_\_\_\_ The race was over quickly.

10. \_\_\_\_\_\_\_\_\_\_\_\_\_ The race was over in 10 minutes.

CONSTRUCTING INFERENCES FROM OBSERVATIONS

Which of the following statements are observations and which are inferences? Indicate your answer with either the letter “O” for an observation, or the letter “I” for an inference.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_ It is summertime.

2. \_\_\_\_\_\_\_\_\_\_\_\_\_ It is daytime.

3. \_\_\_\_\_\_\_\_\_\_\_\_\_ They saw birds.

4. \_\_\_\_\_\_\_\_\_\_\_\_\_ They saw seagulls.

5. \_\_\_\_\_\_\_\_\_\_\_\_\_ They went swimming.

6. \_\_\_\_\_\_\_\_\_\_\_\_\_ One friend’s name was Bob.

7. \_\_\_\_\_\_\_\_\_\_\_\_\_ It was a warm day.

8. \_\_\_\_\_\_\_\_\_\_\_\_\_ The birds were black and white.

9. \_\_\_\_\_\_\_\_\_\_\_\_\_ They ate lunch and drank Coca-Cola&.

10. \_\_\_\_\_\_\_\_\_\_\_\_\_ The people are friends.

