Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per: \_\_\_\_\_\_\_\_

A hypothesis can either be true or false. The same is true of a conclusion. **For a conditional statement to be true, the hypothesis and conclusion do not necessarily have to be true.** Determine whether each conditional statement is true or false. If it is false, write a conclusion that proves the statement false.

1. If yesterday was Thursday, then today is Friday.
2. If a month has 30 days, then it is September.
3. If an even number is not divisible by 2, then 9 is a perfect cube.
4. If Omar is a high school student, then he attends PV High.
5. If a student is taking a foreign language, then they speak Japanese.
6. If points A, B, and C are collinear, then they lie on the same line.
7. If an angle is acute, then it has a measure of 30°.

Fill in the missing blanks to continue the pattern:

1. **2, 4, \_\_\_\_\_\_ , 8, \_\_\_\_\_\_\_**
2. **0, 1, 1, 2, 3, 5, \_\_\_\_\_\_ , \_\_\_\_\_\_\_\_**
3. **↑, ↓, ←, →, ↑, \_\_\_\_\_ , ←, \_\_\_\_\_\_\_\_**
4. **|, +, ̶, |, +, ̶, \_\_\_\_\_\_\_**
5. **A, B, C, C, A, B, C, C, A, \_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_**
6. **:o, ☹, ☺, :o, ☹, \_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per: \_\_\_\_\_\_\_

**Logic Problem: Dinner with the Montagues**

Use the table to help you solve the logic problem. Each square represents a possible answer. Follow the rows and columns to find the correct combination. Draw a dot in a square for the answer where the vertical and horizontal squares meet. Draw an “x” in a square that *isn’t* the answer.



|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Stewed Veal** | **Roasted Pheasant** | **Salt-cured Pork Loin** | **Fried Trout** | **Muscat Pears** | **Chutney** | **Apple Chicken Sausage** | **Black & Sour Cherries** |
| **Romeo** |  |  |  |  |  |  |  |  |
| **Benvolio** |  |  |  |  |  |  |  |  |
| **Mercutio** |  |  |  |  |  |  |  |  |
| **Balthasar** |  |  |  |  |  |  |  |  |
| **Muscat Pears** |  |  |  |  |  |  |  |  |
| **Chutney** |  |  |  |  |  |  |  |  |
| **Apple Chicken Sausage** |  |  |  |  |  |  |  |  |
| **Black & Sour Cherries** |  |  |  |  |  |  |  |  |

The Montague family sat down for dinner at the castle. They each got a meal: stewed veal, roasted pheasant, salt-cured pork loin, and fried trout. Each family member had a different side with their meal: muscat pears, chutney, apple chicken sausage, and black & sour cherries. Use the clues below to find out what each Montague ate for dinner.

1. Mercutio enjoyed chutney as his side dish
2. Romeo did not have fried trout or salt-cured pork loin as his meal, but he did have apple chicken sausage
3. Benvolio ate fried trout, but did not have black & sour cherries as his side
4. The person who had salt-cured pork loin had black & sour cherries as their side dish
5. The roasted pheasant dinner did not have apple

chicken sausage as the side