Reasoning Activity – Day 1

Work with a partner. Your goal is to sort the "arguments" below into two categories that make reasonable sense to you and your partner. You may NOT use True/False as your two categories. Cut up the numbered arguments with scissors and sort on your desktops. When you have finish and you agree on your sorting, write a statement to explain how you sorted.

1. "Your Honor, here is a credit card receipt for gas bought at pump 6 at our Wal-Mart at 10:30 pm on the night in question. Here is a copy of the security camera video for that pump at that time, showing my client pumping gas. Therefore, he could not have committed this crime between 10-11pm in Tulsa that night."

2. Since it snowed every New Year's Day for the past four years, it will snow on New Year's Day this year.

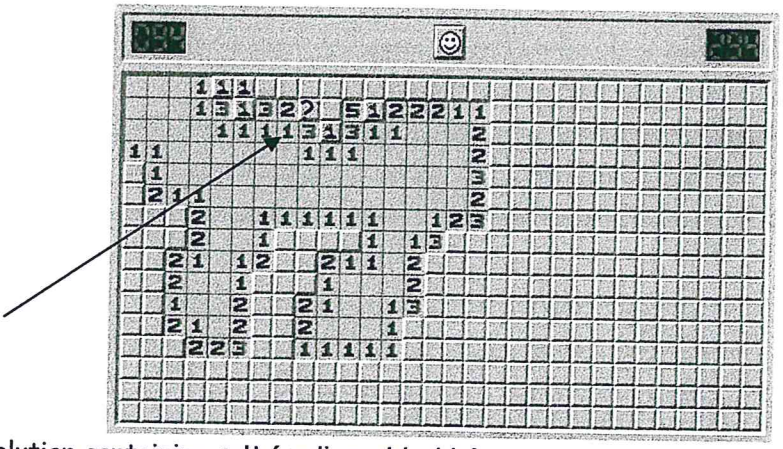
3. A child examines ten tulips, all of which are red, and concludes that all tulips must be red.

4. If an isosceles triangle has at least two sides the same length, then an equilateral triangle is also isosceles.

5. Sandy earned A's on her first six geometry tests so she concludes that she will always earn A's on geometry tests.

6. Cornelius, Dolly, and Lorna each used something different to try to stick two sheets of paper together. One used glue, one used paste, and one used rubber cement. Their last names are Kingman, Marner, and Norwood. Norwood and the girl who used paste did neat jobs. Marner likes to play catch with his father. Dolly's name is not Kingman. Cornelius did not use glue. It is possible, with the information just given, to figure out the correct names and which substance was used to stick two sheets together for each person.

7. This is an example of a Minesweeper game screen. A number in a square indicates how many "landmines" are touching that square. The square with a ? is a landmine because the square to its lower left has a "1" in it, and the ? is the only unmarked square around it. Since the "1" must touch 1 landmine, the ? square must be a landmine.



8. A scientist dips a platinum wire into a solution containing salt (sodium chloride), passes the wire over a flame, and observes that it produces an orange-yellow flame. She does this with many other solutions that contain salt, finding that they all produce an orange-yellow flame. She concludes that any substance containing salt will produce an orange-yellow flame when burned.

9. Here are the first six terms of a sequence: 7, 3, -1, -5, -9, -13...
   The next two terms must be -17 and -21 because each term appears to be 4 less than the previous term.

10. If Anita goes to the concert, Emma will go. If Emma goes to the concert, then Austin will go. If Austin goes to the concert, then Ramon will go. Only two of these four people go to the concert. The two who went must be Austin and Ramon.