

INSTRUCTIONS...

Answer each of the following problems in the space provided. You **MUST** clearly show your reasoning along with **ALL** of your work in solving the problem!

Whatever you do not finish in class is for HOMEWORK!!!

PROBLEM #1: MVHS Tricks OR Treats

This Halloween five MVHS teachers went out TRICK or TREATING on McKenna Ave. From the information given below, can you work out which scary costume each teacher wore, the number of the house and the type of TREAT given by the house to avoid a TRICK!

CLUES???

- Mr. Svare was given a Snickers bar at a house with a number lower than the one that Mr. Stewart was at.
- Mr. Stewart was not the teacher dressed as Minnie Mouse, who was given a Kit Kat bar.
- Mr. Hallihan, dressed as a skeleton, visited a house numbered two less than that where Barney knocked on the door.
- Mr. Savage was at house number 13, but unluckily was not given a Mars bar.
- Mr. Watters was not at house number 8.
- SpongeBob was at house number 5.
- The householder at number 11 gave out Twix bars.

{MISSING CLUES FOR HOUSE #3, SMARTIES TREAT AND FRANKENSTEIN}

COMPLETE EACH OF THE FOLLOWING...

| House Number | Teacher | Costume | Treat |
|--------------|---------|---------|-------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

EXPLAIN your reasoning and show all your work below!

PROBLEM #2:

Line Em' Up



CAN YOU FILL IN THE NAMES OF THESE SUSPECTS?



ED IS TALLER THAN NED. NED IS TALLER THAN RED. RED IS TALLER THAN TED. AL IS TALLER THAN RED, BUT SHORTER THAN NED. IKE IS STANDING BETWEEN SAL AND TODD, WHO IS SHORTER THAN ED, BUT TALLER THAN IKE. VAN IS STANDING BETWEEN ED AND IAN, WHO IS STANDING NEXT TO TODD. THERE ARE SEVEN MEN STANDING BETWEEN VAN AND TED.

WHAT IS THE TRANSITIVE PROPERTY?



1) Put the name of each suspect under their picture.

2) Explain your reasoning and show all your work below!

PROBLEM #3: **Missing Phone Number?**

Given the following clues, determine the missing phone number: The first three digits appear in descending order with a sum of 18 and a product of 210. The final four digits consist of three primes in ascending order surrounding a composite number in the second-to-last position. These four digits have a product of 336.

ANSWER EACH OF THE FOLLOWING...

- What is the missing phone number?
- EXPLAIN your reasoning and show all your work below!



PROBLEM #4:

Inequality Sudoku

Sudoku puzzles are seen in many books, newspapers, and magazines. However, inequality Sudoku puzzles, like the one shown below, are much less common.

The Puzzle

Complete the puzzle by inserting the digits 1 through 9 into the cells so that the inequality signs are correct. Each digit must occur only once in each column or row, as in a conventional Sudoku puzzle.

| | | |
|---------|---------|-------|
| < 8 < 9 | < 7 > 4 | < 6 > |
| > < | < > 5 | > < |
| 7 > 1 < | > < 6 | > < |
| < 9 > | > > | < < |
| 8 > 7 > | < > | > < |
| > > | > < | < > 2 |
| < < | < 5 > | < < |
| < < | > < 9 | > < |
| 9 > > | > < 8 | > > |

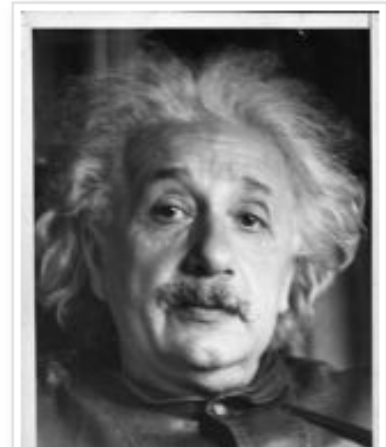
PROBLEM #5:

Einstein's Riddle

This is a straight-forward logic puzzle... no tricks; just logic.

Good luck — don't give up.

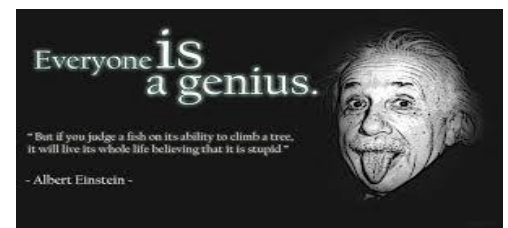
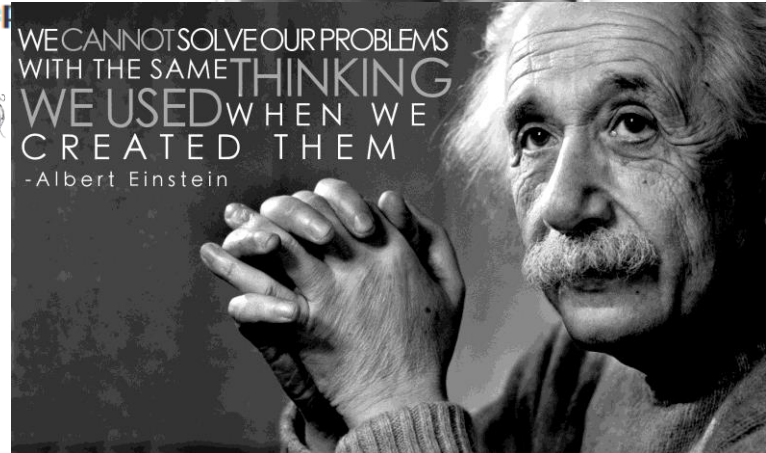
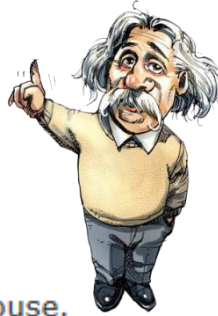
- On a street there are five houses; each is painted a different color
- In each house lives a person of different nationality
- The five homeowners each drink a different kind of beverage, smoke a different brand of cigar and keep a different pet



WHO OWNS THE FISH?

15 Facts:

1. A Brit lives in the red house.
2. The Swede keeps dogs as pets.
3. The Dane drinks tea.
4. The Green house is next to, and on the left of the White house.
5. The owner of the Green house drinks coffee.
6. The person who smokes Pall Mall rears birds.
7. The owner of the Yellow house smokes Dunhill.
8. The man living in the center house drinks milk.
9. The Norwegian lives in the first house.
10. The man who smokes Blends lives next to the one who keeps cats.
11. The man who keeps horses lives next to the man who smokes Dunhill.
12. The man who smokes Blue Master drinks beer.
13. The German smokes Prince.
14. The Norwegian lives next to the blue house.
15. The man who smokes Blends has a neighbor who drinks water.



According to my sources, Albert Einstein created this riddle. Allegedly, he said: "98% OF THE WORLD POPULATION WILL NOT BE ABLE TO SOLVE IT."