Name: _____

Mystery Gang Empirical Formulae

The Mystery Gang needs your help! Eight different crimes happened all at the same time. The police have eight suspects in custody, but they are having a hard time matching up the suspects with the crimes! These perps are clever and they planned their crimes carefully.

They'll get away with it, too, if it isn't for you meddling kids!

Get a case description (one at a time!) from the pile. For each one:
- Determine the empirical formula of each compound. Record all of your calculations/work in the space provided.
- Get the suspect information from the Suspect Board.
- Match you evidence with the criminal from the Suspect Board.
- Record your findings in the table provided.
- <u>Note:</u> You'll need to find the Molecular Formula for the suspects sometimes, too!

Case Number	Empirical Formula	Molecular Formula	Whodunit?
1			
2			
3			
4			
5			
6			
7			
8			

Calculations

Case Number	Calculations
1	
2	
3	
4	
5	
6	
7	
8	

Post Activity Questions

1. In your OWN words, what is an empirical formula? How can it differ from a molecular formula? Does it differ from a salt's formula? Why or why not?

2. Were there any suspects who might have a good defense? Explain why you think so.