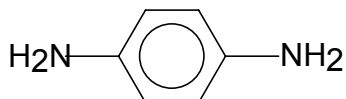


Quiz 4B

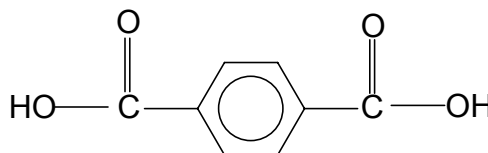
Name: _____
Student No.: _____
Section No.: 64 65

1. Given the following, derive the ideal gas law ($PV = nRT$), as Dr. Kenney did in lecture. (2 pts)
 1. When you blow up a balloon, the balloon gets larger. (1 pt)
 2. When you cool a balloon, it will get smaller and the contents will take up less space. (1 pt)
 3. When you put a balloon in a vacuum pump, the balloon gets larger, until it breaks. (1 pt)

2. Scott's brother Shawn and cousin Glenn are firefighter/paramedics. They occasionally have to wear body armor made of Kevlar to protect themselves. Kevlar is made from:



p-phenylenediamine



terephthalic acid

What kind of polymer forms? (1 pt) Name the functional groups on each of the monomers. (2 pts) Draw the polymer that results with three repeating units. (2 pts):