November 2021 challenge

1. 62 people have taken part in a survey on modes of transport they use to travel to work. They have been asked whether they travel by Car, Train and Bus only or a combination of these three modes of travel.

   Twice as many people use the Car only as use the Car and Train.
   Four more people use the Bus only than the Train only.
   Twice as many people use the Train and Bus as use all three modes.
   The same number of people use the Car and Bus as use the Bus only.
   Thirteen more people use the Car only than the Bus only.
   Two people use all three modes of transport.

   a. How many people travel by Car only?

   b. How many people travel by Train only?

   c. How many people travel by Bus only?

   d. How many people travel by Car and Bus?

2. Find the number equivalent for the following alphametic expressions to make the equations true. Each letter is unique with values from 0 to 9. Note: There may be more than one solution.

   a. ZERO + ONE + TWO = THREE

   b. TWO + THREE + SEVEN = TWELVE

   c. THREE + THREE + ONE = SEVEN

   d. SEVEN + SEVEN + SIX = TWENTY