Group members (2 to 4): \_\_\_\_\_

(1) Find a basis for the subspace defined by the following equations for  $(x_1, x_2, x_3, x_4, x_5) \in \mathbb{R}^5$ . Your answer should be a set of five-dimensional vectors.

$$2x_1 + x_3 - 2x_4 - 2x_5 = 0$$
  

$$x_1 + 2x_3 - x_4 + 2x_5 = 0$$
  

$$-3x_1 - 4x_3 + 3x_4 - 2x_5 = 0$$