1. Eight people are seated around a circular table. Each person shakes hands with everyone at the table except the person sitting directly across the table.
   a.) Draw a graph that models this situation.

   b.) What do the vertices represent? What do the edges represent?

   c.) How many handshakes were there in all? Justify your answer with a sentence or two.

2. Seven actors and actresses (labeled A through G) were spotted together at a particular Hollywood party. According to IMDB,
   
   A did a movie with B, C*, F
   B did a movie with A, E*
   C did a movie with A*
   D did a movie with F*, G
   E did a movie with B*, G
   F did a movie with A, D*, G
   G did a movie with D, E, F
   
   (The asterisk (*) indicates that these people have been in a movie together twice.)

   a.) Draw a graph that models this situation.

   b.) What is the degree of vertex F in your graph? What does this degree represent in the context of this scenario?

   c.) How many movies were made in all? Justify your answer with a sentence or two.