Problem Set 3   **Graph Theory**   **Due 10/29/15**

Four of these problems will be graded, with each problem worth 5 points. Clear and complete justification is required for full credit. You are welcome to discuss these problems with anyone and everyone, but must write up your own final submission without reference to any sources other than the textbook and instructor.

1. Loosely speaking, every tree has at least 2 vertices of degree 1. Refine this statement and give a good proof.

2. Do Problem G21 from Marcus.

3. Do Problems G33 and G34 from Marcus.

4. Do Problems H16 and H17 from Marcus.

5. Do Problem I20 from Marcus.

6. Do Problem I21 from Marcus.

7. Do Problems I34 and I 35 from Marcus.

8. Do Problem J38 from Marcus.

9. Do Problems J39-J42 from Marcus.