

MA415 Homework #2
Due Friday, September 9

1. Read Theorem 1.7 on page 23. Make some small examples for yourself to illustrate the theorem. You do not have to turn anything in.
2. Page 25, #1, 2, 3, 4.
3. Let G be a graph. Assume $v_1, v_2, \dots, v_{k-1}, v_k$ is a shortest path from v_1 to v_k . Prove that v_1, \dots, v_{k-1} is a shortest path from v_1 to v_{k-1} . While solving this problem, be careful to remember that a walk may not necessarily be a path.