

CS 3250: Software Testing (Fall 2025)

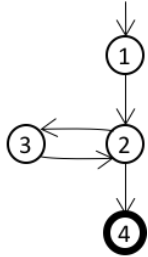
Activity: Graph coverage – 1

(no submission)

Purpose: Practice graph-based testing, apply structural graph coverage criteria to design tests

You may make a copy of a worksheet and complete this activity, or type your answers in any text editor. You may work alone or with at most two other students in this course.

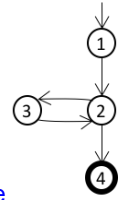
Consider the following graph



1. Apply **Node Coverage** to derive
 - Test requirements
 - Test paths (hint: 1 test path)

2. Apply **Edge Coverage** to derive
 - Test requirements
 - Test paths (hint: 1 test path)

3. Apply **Edge-Pair Coverage** to derive
 - Test requirements (hint: 5 test requirements)
 - Test paths (hint: 2 test paths)



Include the graph here for your convenience

4. Apply **Simple Path Coverage** to derive
 - Test requirements (hint: 9 test requirements)
 - Let's skip test paths

5. Apply **Prime Path Coverage** to derive
 - Test requirements (hint: 5 test requirements)
 - Any infeasible prime paths?
 - Test paths (hint: 2 test paths)