Johnson County Community College  
Problem Solving Outcome  

Outcomes Statement: Upon receipt of an associate degree from Johnson County Community College, a student should be able to demonstrate understanding of solving problems by recognizing the problem; reviewing information about the problem; developing plausible solutions; and evaluating results.

Rubrics: Every artifact will be evaluated to determine whether the student has demonstrated the ability to perform each rubric item. The rubric items have been separated for modes of inquiry and for problem solving, and each artifact will be given scores for either or both areas, as appropriate. The following rubric will measure the problem-solving outcomes:

1. Recognizes the problem.  
2. Reviews information about the problem.  
3. Develops plausible solutions.  
4. Evaluates results.

If an artifact presents evidence that a student demonstrated the ability to perform a rubric, the artifact will be given a plus (+) score for that rubric. If an artifact presents evidence that a student did not demonstrate the ability to perform a rubric, the artifact will be given a minus (-) score for that rubric. If it appears that the assignment did not present an opportunity for students to perform a rubric, the artifact will be given a zero (0) score for that rubric. For example, this may be a result of instances where the instructor’s assignment defined the problem or method of gathering information. The subcommittee scorers should concur on those particular rubrics which receive zeros. Artifacts scored for Problem Solving must allow the student to perform at least 3 of the 4 rubrics. Only rubrics with plus or minus scores will be counted. A zero score is not counted and does not impact the outcome standard. It is not necessary for the subcommittee scorers to concur on rubrics which receive plus or minus scores. The artifacts are scored as follows:

4 = the student demonstrated the ability to perform all 4 rubrics.  
3 = the student demonstrated the ability to perform 3 rubrics.  
2 = the student was given the opportunity to perform 3 rubrics and demonstrated the ability to perform 2 of them.  
1 = the student was given the opportunity to either perform 4 rubrics and demonstrated the ability to perform 1 or 2 of them or perform 3 rubrics and demonstrated the ability to perform only 1 rubric.  
0 = the student was unable to demonstrate the ability to perform any of the rubrics.

Standards: At least 80% of the Problem Solving artifacts should receive a score of 3.

Suggested Assignment Guidelines
An appropriate assignment (e.g., research paper, semester project, problem-solving or data-collection assignment) would allow students to demonstrate problem solving skills by asking them to:

- identify and state a problem;
- collect and review information about the problem;
- develop possible solutions; and
- evaluate and apply selected solutions.

Student work best suited for evaluation would require the student to identify and state a problem, develop possible solution(s) to the problem, and evaluate and apply selected solutions. The ideal assignment is one which provides an opportunity for the student to articulate a problem to be solved and describe and explain the process of solving the problem.