

207 Vermont Math Problem Solving Criteria

<i>Source:</i> Vermont Department of Education			
<i>Subjects:</i>	<i>Mathematics</i>	<i># of scales</i>	<i>4</i>
<i>Grade(s)</i>	<i>8</i>	<i>Scale length</i>	<i>4</i>

Scale I: Understanding the Problem

- 4 Identified special factors that influenced the approach before starting the problem.
- 3 Understood the problem.
- 2 Understood enough to solve part of the problem or to get part of the solution.
- 1 Didn't understand enough to get started or make progress.

Scale II: How Student Solved Problem

- 4 Approach was efficient or sophisticated.
- 3 Approach would work for the problem.
- 2 Approach would only lead to solving part of the problem.
- 1 Approach didn't work.

Scale III: Decisions Along the Way

- 4 Clearly explained the reasons for the correct decisions made throughout the problem.
- 3 Didn't clearly explain the reasons for decisions, but work suggests correct reasoning used for only part of the problem.
- 2 Only partly correct reasoning, or correct reasoning used for only part of the problem.
- 1 No reasoning is evident from the work or reasoning is incorrect.

Scale IV: Outcomes of Activities

- 4 Solved the problem and made general rule about the solution or extended the solution to a more complicated situation.
- 3 Solved the problem and connected the solution to other math or described a use for what was learned in the "real world."
- 2 Only partly correct reasoning, or correct reasoning used for only part of the problem.
- 1 Solved the problem and stopped.

211 Kentucky Holistic Scoring Rubric for Grade 12 Math

Source: Kentucky Department of Education *Open-Response Released Items and Scoring Rubrics: Grade 12, 1991-92*

Subjects:	Mathematics	# of scales	1
Grade(s)	12	Scale length	5

Holistic Scale

- 5** The student completes all important components of the task and communicates ideas clearly.
- The student demonstrates in-depth understanding of the relevant concepts and/or processes.
- Where appropriate, the student chooses more efficient and/or sophisticated processes.
- Where appropriate, the student offers insightful interpretations or extensions (generalizations, applications, analogies).
- 4** The student completes most important components of the task and communicates clearly.
- The student demonstrates understanding of major concepts even though she/he overlooks or misunderstands some less important ideas or details.
- 3** The student completes some important components of the task and communicates those clearly.
- The student demonstrates that there are gaps in his/her conceptual understanding.
- 2** Student shows minimal understanding.
- Student unable to generate strategy or answer may display only recall effect. Answer lacks clear communication.
- Answer may be totally incorrect or irrelevant.
- 1** Blank/no response.