

Math 30 Rubric for Fall 2004

	Unsatisfactory	Proficient	Excellent
<p>Communication Clear, organized, and logical work Clear explanations and reasoning Use of vocabulary or notation Defines variables and interprets the meaning of slopes, points, intercepts, and solutions in a context.</p>	<p>Overall the work is either not shown or sloppy and unorganized. Explanations are either not given or do not clearly support the answer or address the question. Interprets slopes, intercepts, and solutions in context inconsistently, inaccurately, and imprecisely.</p>	<p>Most of the work is neat and organized. Most answers are supported by work shown. Explanations are usually given, but may at times be unclear or incomplete. If prompted, defines variables accurately and with appropriate specificity in most cases. Interprets slopes, intercepts, and solutions, though some interpretations lack precision or clarity or units.</p>	<p>Work is organized and flows logically. Explanations are clear, complete, well-reasoned with correct use of vocabulary and notation. Clearly, accurately, and precisely defines variables, prompted and unprompted. Interprets solutions, etc. in context with accuracy and precision.</p>
<p>Problem-solving Understanding of problem Estimation and checking answers Using an appropriate technique Generating and using a model Use of a general problem solving process</p>	<p>Misinterprets problems or ignores significant parts of given information or tasks. Less than 50% of the problems are worked correctly. Little evidence of a problem-solving process. Usually unable to generate useful models or unable to use a model to answer a question. Estimates are unreasonable and reasoning is not clear.</p>	<p><i>Usually</i> interprets problems correctly. At least 70% of the problems are worked correctly. Strategies are effective, but may not be efficient. Usually able to generate a model, but model may not be completely accurate. Usually able to use model to generate an answer to a question, though some errors may affect accuracy. Limited and incomplete use of a general problem-solving process. Estimates are at times unreasonable or reasoning may be illogical. No checks.</p>	<p>Correctly interprets problems and states relevant assumptions. At least 90% of the problems are worked accurately and efficiently. Generates accurate and useful models. Uses models effectively to answer questions. Clear use of a general problem-solving process. Estimates are reasonable and reasoning is logical. Checks answers.</p>
<p>Multiple representations Construction, use and interpretation of tables. Construction, use, and interpretation of coordinate graphs. Construction of EQ's from tables or graphs. Interpret models' accuracy/validity Use of technology</p>	<p>Graphs or tables are misinterpreted. Attempts to construct tables and graphs, but work is incomplete, unorganized, inappropriately scaled, or incorrect. No clear labeling. Attempts to construct interpret or use tables and graphs but work is incomplete, inaccurate, or incorrect. Unable to make effective use of technology to answer questions.</p>	<p>Correctly interprets and uses information from tables and graphs in an attempt to answer a question, find an equation, etc. Constructs tables and graphs but organization, scale, or some other difficulty may impede finding a solution. Tables are labeled accurately. Graphs are <i>accurately</i> scaled and labeled. Interprets validity and limitations of tables and graphs though some interpretations lack precision or complete reasoning. Able to use technology to answer questions, answers may be incomplete.</p>	<p>Correctly interprets graphs and tables and uses information to find a solution. Accurately constructs and uses tables and graphs in a manner that supports a solution. Tables and graphs are accurately labeled. Units given. Interprets validity and limitations of tables and graphs. Makes effective use of technology to solve problems.</p>
<p>Applications and skills to succeed in next course Symbolically solve linear equations, quadratic equations (including complex solutions), exponential equations using logarithms. Find the equation/slope of a line given two points.</p>	<p>Takes some steps to execute procedural skills but is successful less than 70% time. In more than 50% of the problems, makes procedural or computational errors.</p>	<p>Performs at least 70% of the procedural skills correctly or with minor errors.</p>	<p>Performs at least 90% of the procedural skills correctly or with minor errors.</p>

